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AIDS

**HIV/AIDS EDUCATION
IN SCHOOLS
EVALUATION**

RESEARCH REPORT

SERIES REPORT: 1

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HIV/AIDS EDUCATION IN SCHOOLS EVALUATION: RESEARCH REPORT

SERIES REPORT: 1

by

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for

Alberta Health

Edmonton, Alberta

December, 1991

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*HIV/AIDS Education in Schools Evaluation:
Summary Report*

and the full report:

*HIV/AIDS Education in Schools Evaluation:
Research Report*

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December 1991

An Open Letter to Readers:

The Acquired Immunodeficiency Syndrome, AIDS, will directly or indirectly affect the lives of all Albertans. The provincial government launched its program for the prevention, management and control of AIDS in October, 1987 by releasing its strategic plan, "Education and Caring: Alberta's Program for AIDS". Major strategies were identified and initiated to help control AIDS by preventing the spread of infection, in part through educational efforts to ensure that youth and adolescents have the knowledge that will enable them to choose healthy life-styles.

The Working Group on AIDS Education in Schools was established to provide advice and support for the inclusion of AIDS education within the junior and senior high comprehensive sexuality curriculum and to identify and provide resources to support this programming. The AIDS Education in Schools Evaluation was conducted in 1990/91 to assess the relative effectiveness of instructional strategies and resources being used in HIV infection/AIDS education in Grades 9 and 11.

This important Alberta project involved 128 junior and senior high schools across the province.

The results of the study show that students support getting information about human sexuality, HIV infection/AIDS and sexually transmitted diseases from their schools and from their teachers.

The study will hopefully assist educators in providing information and resources to ensure that students fully understand this serious public health problem.

Alberta Health and Alberta Education are pleased with the continued co-operation in this important area.

Our appreciation and thanks are extended to students, teachers, principals and superintendents who participated in the evaluation project. The work is an important step in continuing to ensure that effective health education is being provided to young Albertans.

Nancy J. Betkowski
Minister of Health

Jim Dinning
Minister of Education



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EXECUTIVE SUMMARY

Introduction

The HIV/AIDS Education in Schools Evaluation was directed by Alberta Health and Alberta Education, with representation from community organizations. It was funded by Alberta Health. The initial design of the project was developed in the fall of 1988, information was collected in the spring of 1990, and the analysis of information was completed in 1991. The purpose of the project was to determine the effectiveness of various instructional strategies and specific student print learning resources used in HIV/AIDS (Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome) education. Students' knowledge and attitudes, before and after HIV/AIDS instruction, were assessed.

The study surveyed 65 grade 9 classes and 51 grade 11 classes. A total of 128 schools including students and their teachers participated in the study. Approximately 2,800 to 3,200 students took part, and 5,745 questionnaires were analyzed. Students in *treatment* classes completed questionnaires before and after they received HIV/AIDS instruction. Students in *control* classes completed pre-test and post-test questionnaires before they received HIV/AIDS instruction.

The following instruments were used to collect information:

- student (grade 9 and 11) control and treatment pre-test (February, 1990) questionnaire
- student (grade 9 and 11) control and treatment post-test (March, 1990) questionnaire
- teacher questionnaire
- description of class form

Results

The results are presented in four sections: Sources of Information for Treatment Students, Effects of HIV/AIDS Instruction on Knowledge and Attitudes, Research Question 1, and Research Question 2. These findings are repeated from the "Summary" sections of this report.

Sources of Information for Treatment Students

In the questionnaires, students were given a list of seven sources and requested to identify actual (main and second) sources, as well as their preferred source for human sexuality, HIV/AIDS, and STD (Sexually Transmitted Disease) information. Students were also requested to rate the job each source was doing in providing HIV/AIDS information. Students gave their responses before and after HIV/AIDS instruction.

There were significant differences in the percentages of students identifying particular actual and preferred sources of information that students identified for human sexuality, HIV/AIDS, and STD information when their responses were compared before and after HIV/AIDS instruction. There were also significant differences in the percentages of students' ratings of the job the various sources were doing in providing HIV/AIDS information.

Actual (First and Second) Sources of Information

Grade 9 and 11 students said that they received human sexuality information mainly from the school. After the school, students said the family was their next most frequent source for human sexuality information. The

school was also the students' first source for HIV/AIDS information with television and radio as the next source. Students identified the school as their main source for other STD information. Following the school; magazines, newspapers and books were reported as students' next sources for STD information.

Preferred Sources of Information

Grade 9 and 11 students reported that they preferred to get information from the school on human sexuality, HIV/AIDS, and other STD. The family was the next preferred source for human sexuality information. Health professionals followed the school as the next preferred source for both HIV/AIDS and other STD information.

Rating of Providing HIV/AIDS Information

Grade 9 and 11 students said that schools provided HIV/AIDS information well. Before their HIV/AIDS instruction, over 85% of the students rated the "job" the school was doing as fairly good to very good; over 95% rated the school as doing a fairly good to very good "job" after their HIV/AIDS instruction.

Conclusion

The students reported that they received information about all three topics (human sexuality, HIV/AIDS, and other STD) from schools and that they preferred the school provide this information. Their next most frequent preference was the family for human sexuality information and they reported that the family was the next source. After the school, they would prefer to receive information on HIV/AIDS and other STD from health professionals and they said that they received it from the media. This discrepancy may be due to the ease of accessibility of the media as compared to health professionals. It is interesting that friends were not frequently identified as either an actual or preferred

source of information for any of the topics which is inconsistent with findings reported in other studies.

The school was the source that received the highest ratings by students for providing them with information about HIV/AIDS. A very large majority of the students rated the "job" the school was doing as very good or fairly good.

Effects of HIV/AIDS Instruction on Knowledge and Attitudes

Classes that received treatment in the form of HIV/AIDS instruction had significantly higher levels of knowledge and more tolerant attitudes than did classes in pre-treatment, pre-control, and post-control groups (which had not had instruction). Furthermore, classes in pre-treatment, pre-control, and post-control groups were not significantly different from each other.

For grade 9 classes, HIV/AIDS instruction was related to a higher level of knowledge and more tolerant attitudes but **not** to intentions about future behaviour when compared to classes who had not received HIV/AIDS instruction. For the grade 11 classes, HIV/AIDS instruction was related to a significantly higher level of knowledge, more tolerant attitudes, and students were more likely to report intentions of healthy sexual behaviour in the future.

These findings were critical; they established the areas of effectiveness of HIV/AIDS instruction in the school. Furthermore, they were essential for completing further analysis to provide answers to the research questions.

Research Question 1

What are the effects of the HIV/AIDS instructional strategies on knowledge and attitudes, including intentions of future behaviour, of junior and senior high students?

The instructional strategies that were analyzed included three **overall** methods of providing HIV/AIDS instruction. The methods were: primarily by a teacher in regular classroom activities, primarily by a guest in classroom activities, and primarily by teacher in an alternative to regular classroom (the strategies are discussed in detail in the “Methods” section of this report).

Combination instructional strategies were also analyzed (the three **overall** strategies mentioned above combined with support of various kinds). The effects of the **overall** and **combination** strategies were determined by comparing grade 9 and grade 11 students, post-treatment, with post-control students in that grade who had not received HIV/AIDS instruction.

HIV/AIDS instruction provided primarily by a teacher in regular classroom activities was most consistently effective for grade 9 and 11 students, when their responses were compared to responses of those who had received instruction by the other methods or who had not received instruction. In addition, teachers’ use of supports such as audio-visual resources (e.g., films or videos), guests, and/or print resources was effective.

The findings from this study strongly supported the teacher providing HIV/AIDS instruction in regular junior and senior high classrooms in order for students to attain a higher level of HIV/AIDS-related knowledge. Similarly, teacher classroom instruction had positive effects on grade 9 students’ attitudes and on grade 11 students’ intentions about future behaviour. These gains were enhanced by the teachers using support resources.

Research Question 2

What are the effects of supporting HIV/AIDS instruction with specific print student learning resources on knowledge and attitudes, including intentions about future behaviour, of junior and senior high school students?

In this study, students’ responses related to either one of two print student learning resources or a combination of both were assessed: 1) *AIDS: What Young Adults Should Know* and 2) *AIDS: The Choices and Chances*. These resources were not considered to be representative of those that were available at the time of the study, but had been provided for schools and were therefore being assessed.

The resources were used in four different ways as supports for the strategies that were identified for providing HIV/AIDS instruction, and the effects of each were measured. The uses of the resources were:

- 1) **seen** — having seen the resource
- 2) **read** — having read most or all of the resource, excluding “not at all” or “scanned a little”
- 3) **used** — having used the resource in class(es)
- 4) **kept** — having used the resource in class(es) and been given a copy of the resource to keep.

For grade 9 students, *AIDS: What Young Adults Should Know* as a single resource or in combination with *AIDS: The Choices and Chances* was equally effective. Students had higher levels of knowledge if they had **seen** *AIDS: What Young Adults Should Know*; *AIDS: The Choices and Chances*; or both resources. They reported more tolerant attitudes (excluding intentions about future behaviour) if they had **seen** or **read** *AIDS: What Young Adults Should Know* or both of the resources.

For grade 11 students, *AIDS: What Young Adults Should Know* and *AIDS: The Choices and Chances* as single resources or in combination were effective in relation to attitudes if students had **seen** either one or both of

them. As well, the combination of the two resources was effective in relation to students' knowledge if both resources were **seen**, **read** or **used** and students' attitudes if both resources were **read** or **used**. The resources were also effective in relation to intentions about future behaviour if they were **read** or **used** together.

The combination of the two resources, *AIDS: What Young Adults Should Know* and *AIDS: The Choices and Chances*, was most consistently effective in supporting instructional strategies for grade 9 and 11 students. The difference in effectiveness between grade 9 and grade 11 students of *AIDS: What Young Adults Should Know* could be explained by the booklet's content and format. The booklet may be more appropriate for and more appealing to grade 9 students than grade 11 students.

Based on the findings in this study, there is no support for giving students their own copies of any booklet to **keep**.

Recommendations

The following recommendations have been developed by the researchers based on the findings of the study:

Comprehensive Human Sexuality Education in Schools

HIV/AIDS and other STD will continue to be threats to young people's health in the foreseeable future. Students identified the school as their main source of information about human sexuality, HIV/AIDS, and other STD. This evaluation showed that HIV/AIDS instruction offered in the school does make a positive significant difference in students' knowledge and attitudes.

Recommendation 1.

Alberta schools continue to deliver the mandated comprehensive human sexuality program, including HIV/AIDS and other STD information.

HIV/AIDS Instruction by Classroom Teachers

HIV/AIDS instruction provided primarily by teachers during regular classroom instruction had the most consistently significant effects on students' knowledge and attitudes.

Recommendation 2.

HIV/AIDS instruction be provided by teachers during regular classroom instruction using a variety of supports including print resources, audio-visual resources, and/or guests.

Use of Print Resources with HIV/AIDS Instruction

The combination of HIV/AIDS instruction provided primarily by teachers during regular classroom activities with print resources had significant effects on students' knowledge and attitudes. In this study, either *AIDS: What Young Adults Should Know* or both *AIDS: What Young Adults Should Know* and *AIDS: The Choices and Chances* were effective for grade 9 students. For grade 11 students the use of both of the resources was most effective.

Recommendation 3.

Teachers support HIV/AIDS instruction with appropriate student print learning resources identified and approved by local school boards or Alberta Education.

Support for Human Sexuality, HIV/AIDS, and STD Education in Schools

The students' primary **actual** source for information about human sexuality, HIV/AIDS, and STD was the school. Their second actual source for information about human sexuality was the family, for information about HIV/AIDS it was TV/radio, and for STD it was magazines/papers/books.

The students' first **preferred** source for information about human sexuality, HIV/AIDS and other STD information was the school. The second **preferred** source for information about human sexuality was the family, and for HIV/AIDS and other STD information was health professionals such as doctors and nurses.

Recommendation 4.

Alberta Health, Alberta Education, schools, and agencies responsible for human sexuality education acknowledge and support the role of the family in human sexuality education.

Alberta Health, Alberta Education, and agencies responsible for HIV/AIDS and other STD education acknowledge and support the partnerships of schools, health professionals, community HIV/AIDS organizations, and the media.

framework ensured that there was active representation of the expertise of those concerned with the study. This approach is encouraged for future research involving a variety of stakeholders.

Researchers studying HIV/AIDS education in the schools in Alberta in the future are encouraged to assess the effects of HIV/AIDS education, including instructional strategies and student print learning resources, on adolescents' choice of healthy sexual behaviour.

Future Reports

This study produced much more information than could be included in one report. This report provides the key findings of the effects of HIV/AIDS education (including instructional strategies and print learning resources).

Detailed papers on the remaining information will be prepared. Priority will be given to reporting the information that was collected from teachers.

Future Research

The results from this evaluation were important to many groups. Consequently, the study was directed by a team of representatives from the various stakeholder groups: schools, health units, private consultants and community HIV/AIDS organizations as well as two government departments, Alberta Health and Alberta Education. This partnership

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BACKGROUND

Highlights from the Literature

The Acquired Immune Deficiency Syndrome (AIDS) was identified in 1981 and the Human Immunodeficiency Virus (HIV) was first identified in 1983. Major studies about HIV/AIDS, such as the *Canada Youth & Aids Study* and the *Creative Development Research on: Health Promotion and AIDS Prevention*, have found that adolescents are sexually active and have high risk behaviour. Therefore, they are at risk of contracting HIV/AIDS and other Sexually Transmitted Diseases (STD). Consequently, it is important to provide students in Alberta schools with information about HIV/AIDS and STD.

The literature (Phi Delta Kappa, 1990) has indicated that HIV/AIDS instruction and accompanying support resources for students and teachers help to promote tolerant attitudes and healthy sexual behaviour and prevent the transmission of HIV/AIDS. Curriculum guides have been written on this topic (Center for Chronic Disease Prevention, 1988; Yarber, 1987) and student resources and teacher guides published (Weaver, 1989; Yarber, 1989). Many research articles suggested a framework for developing and implementing health education programs specifically related to preventing HIV/AIDS infection while enhancing and promoting tolerant attitudes and healthy sexual behaviour (Diclemente, 1989; Williams, 1986).

Alberta HIV/AIDS Education

In Alberta, grades 7, 8, and 9 HIV/AIDS instruction is included in the comprehensive human sexuality education of the health and

personal life skills program of studies in the curriculum. The optional implementation date for the health and personal life skills program was September 1986, and the mandatory implementation date was September 1987. For high school students, HIV/AIDS instruction is included in the comprehensive human sexuality education of the Career and Life Management (CALM) course of studies for grade 11 students. The CALM curriculum was field-tested in 1986, optional implementation occurred in 1987-88 and mandatory implementation took place in September 1989. Students must complete the CALM course to receive a high school diploma. As of September 1989, all school boards were required to make human sexuality education available for students in grades 4 through 12. Parents, or students on their own behalf, may choose to have a student not attend the classes on human sexuality.

Alberta Education's curricular documents outline the learning expectations for students and the titles of student learning resources to be used in human sexuality education. As well, support documents suggest various instructional strategies that teachers may decide to use, depending on the needs and interests of their students.

Alberta HIV/AIDS Education Support

HIV/AIDS instruction in schools was stimulated in the fall of 1987 by the Alberta Government's program for the prevention and control of HIV/AIDS. In the first year of the program, Alberta Health, in consultation with Alberta Education, provided audio-visual and student and teacher print resources

to support HIV/AIDS instruction in the grade 9 Health and Personal Life Skills program and in the grade 11 Career and Life Management (CALM) course. In February of 1988, superintendents of schools were notified of the availability of the resources, and the resources were forwarded at their request.

The print resource for junior and senior high schools was *AIDS: What Young Adults Should Know* (Yarber, 1987). The junior high teacher resource was *AIDS: What Young Adults Should Know — Teacher's Guide* (Yarber, 1987). The senior high teacher resource was *Teaching AIDS — A Resource Guide on Acquired Immune Deficiency Syndrome* (Quackenbush and Sargent, 1986). The audio-visual resources for junior high were the video *AIDS Alert* and *STD Update*, a video and filmstrip. A video entitled *A Million Teenagers* was selected for senior high. All audio-visual resources were made available to purchase at minimal cost through ACCESS Network, which is the educational television channel in Alberta.

When these resources were identified, the junior high school Health and Personal Life Skills program of studies had been implemented for a half year, since September 1987, and the senior high school CALM course was being field-tested. Specific HIV/AIDS-related student learning resources for grades 9 and 11 to support the Alberta curriculum had not been previously approved. Therefore, the decision was made to use *AIDS: What Young Adults Should Know* with students in both grade 9 and 11.

Other resources were provided in the first year of the project. Since the CALM course was being field-tested, a series of three lesson plans entitled *Teaching about AIDS: A Series of Lessons Providing Instruction about AIDS and Other Sexually Transmitted Diseases*, for grade 11, was co-developed by the Sexually Transmitted Disease Control — Education Unit, Alberta Health and Alberta Education

and distributed to senior high schools. When the CALM course became mandatory, the lesson plans were included in the CALM curricular support documents.

In February of 1989, the second year of the HIV/AIDS Program, further copies of the same student resources were provided for grade 9 and 11 students at the request of the superintendents. *AIDS: The Choices and Chances*, a booklet published by Alberta Health, was suggested for use at the grade 11 level and copies were provided for students at the request of the superintendents. As well, copies of the *Canada Youth & AIDS Study* (King et al, 1988) could be requested. In the second year of the project, dubbing rights were purchased through ACCESS Network for the videos entitled *AIDS: What You Should Know* for the grade 9 program. As well, *AIDS: What Do We Tell Our Children?* and *Education About AIDS* were made available for teachers, parents and interested others. For the grade 11 level, a number of copies of the video entitled *Sex, Drugs and AIDS* were made available in the Provincial Film Library.

Rationale for the Study

HIV/AIDS instruction was available in the schools of Alberta. Few studies had reported on what happens to students when various instructional strategies and support resources were used. What existed in the literature was mainly information about the importance of HIV/AIDS education in the school system. Since HIV/AIDS was life-threatening and will continue to be so in the foreseeable future, evaluation of HIV/AIDS instruction was necessary. It was important to assess the effects of instruction of the knowledge, attitudes and behaviour of students. In addition, an understanding of which instructional strategies and print resources had the greatest effect on students would assist teachers in future planning.

In other words, there was a need for information both at a research level and at a practical teaching level. Consequently, this evaluation was undertaken. Two research questions were developed for this study. The first question addressed theoretical concerns. The second question addressed practical concerns related to the first research question: the evaluation of the specific print resources that were provided with funds from the Alberta Government's HIV/AIDS program.

The research questions were as follows:

1. *What are the effects of HIV/AIDS instructional strategies on knowledge and attitudes, including intentions about future behaviour, of junior and senior high school students?*
 2. *What are the effects of supporting HIV/AIDS instruction with specific print student learning resources on knowledge and attitudes, including intentions about future behaviour, of junior and senior high school students?*
-

METHODS

Introduction

Preparation for the HIV/AIDS Education In Schools Evaluation began in the fall of 1988. The research was carried out with the advice of the Working Group on HIV/AIDS Education in the Schools, which included membership from Alberta Health, Alberta Education, schools, health units and community HIV/AIDS organizations. The project was funded by Alberta Health. Lorne Seaman and Associates and the Steering Committee developed the initial design for the project in the fall of 1988, and during 1989 prepared the research design, research questions, sample selection procedures, research instruments with accompanying letters, and project plan. The data collection was completed by Dr. Lorne Seaman in the spring of 1990 and analysis of the information was conducted by Drs. Munro and Doherty-Poirier in 1991.

Approach and Research Design

This study used a combination of survey and quasi-experimental methods. Although it was initially planned that classes be selected randomly, the final list of classes was not a pure random sample. A computer-generated list of classes selected randomly across Alberta (each class also representing a jurisdiction and a school) was used as the base sampling frame. Classes whose jurisdictions and schools declined to participate were struck from the list. Unexpectedly high attrition and timeline considerations resulted in a decision to sample additional classes from schools already in the study. A full description of the selection procedure is included later in this section. Once the sample had been selected, the classes were randomly assigned to either

the “treatment” group or to the “control” group.

As explained previously in the section of this report entitled “Background,” Alberta school boards must offer human sexuality education for students in grade 9 and grade 11. However, parents/guardians can request to have their child(ren) opt out of human sexuality education classes. The human sexuality curriculum, including HIV/AIDS instruction, is outlined for grades 9 and 11 in curricular documents but the strategies for providing instruction are at the discretion of the school board in each jurisdiction. Therefore, the treatment (or HIV/AIDS instruction) was not consistent throughout this study.

In this study, the essential difference between the treatment and control groups was the timing of the HIV/AIDS instruction. The treatment group had their HIV/AIDS instruction before the post-test and the control group had their instruction after the post-test. Both groups of classes were scheduled to complete the pre-test questionnaire in February, 1990. The treatment group then received the type of HIV/AIDS instruction determined and planned by their school board and teachers, while the control group did not. Both groups were scheduled to complete the post-test questionnaire in the week of March 18, although some of the questionnaires were completed a little later. The date of the post-test was moved forward from its previously scheduled week in early April because of the airing of a CBC television special *Talkin’ About AIDS* on April 2, 1990. The video *Talkin’ About AIDS* was shown in the timeslot of a regular program entitled *Degrassi High*. This program was targeted specifically for young people. The video *Talkin’ About AIDS* became an intervening variable in the research and it was

accounted for by asking students to report on the post-questionnaire whether they had watched the video.

The control group received the type of HIV/AIDS education their school boards and teachers offered, after data collection had been completed for this study; that is, between April and the end of the school year.

The research design was “quasi-experimental.” It can be represented by the following diagram, where 0 represents an observation, or testing, and X the treatment.

| | Pre | | Post |
|-----------|-----|---|------|
| Treatment | 0 | X | 0 |
| Control | 0 | | 0 |

The initial unit of sample selection and analysis in this study was the class not the individual student. In view of the sensitivity about the topic of HIV/AIDS that prevailed at the time, confidentiality was the highest priority. The research design did not identify individual students in any way, effectively eliminating the ability to track change in individual students between pre-test and post-test.

Instrument Development

Lorne Seaman and Associates and the Steering Committee for the HIV/AIDS Education in the Schools Evaluation developed all four instruments for the study. These were the student pre-test questionnaire, student post-test questionnaire, teacher questionnaire and the description of class form. The instruments, except the student pre-test questionnaire, are included in Appendix B. Some items in the instruments were similar to questions in other existing questionnaires, including those used in the *Canada Youth and AIDS Study*. The Working Group on HIV/AIDS Education in the Schools and other experts in HIV/AIDS

education and evaluation procedures from Alberta Health and Alberta Education verified the face and content validity of the instruments.

The same student pre-test and post-test questionnaires were used for students in grade 9 and grade 11. The pre-test and post-test questionnaires contained identical questions except that the post-test questionnaire had three additional questions. Two of the questions asked about the HIV/AIDS instruction students had received and the other question asked about the video *Talkin’ About AIDS*.

Items were generated to answer the two research questions. Open-ended questions were developed to collect demographic information about the students and the school (for example, questions 1 through 5 in the student post-test questionnaire).

In addition, closed questions with checklist and Likert-type scale response categories were included in the student questionnaires. For example, students were asked to identify first and second sources of information for human sexuality, HIV/AIDS, and other STD by responding to closed questions with checklist response categories. Closed questions with a Likert-type response category were also used to have students rate how well each source provided information about HIV/AIDS and its prevention. The students were asked questions about the student learning print booklets by having them respond to checklists and Likert-type scales.

The level of HIV/AIDS-related knowledge was assessed by requesting that students respond to questions using checklists. The knowledge questions had right and wrong answers. Questions 29, 34, 35, 36, and 38 of the student post-test questionnaire assessed knowledge. Each question included a number of items. In total, students were tested on 39 items that assessed their knowledge about what HIV/AIDS is, the transmission and the prevention of HIV infection, and sexual behaviour which involved the risk of HIV

transmission. A higher score indicated a higher level of knowledge.

Attitudes were measured using closed questions with four category Likert-type scale responses. Students responded to a tolerance scale consisting of twelve items in question 37 of the student post-test questionnaire. The question measured students' tolerance on sensitive issues regarding the presence of HIV/AIDS infection in the community. Subsequent to data collection and at the beginning of data analysis, examination for evidence of construct validity and reliability on the attitude-type scale responses was undertaken. Factor analysis and Pearson r correlations were used. The student responses were factor analyzed. Item loadings at or beyond the 0.50 level were retained and the total attitude scale included all of the twelve items.

Intentions about future behaviour were identified as an attitude measure rather than a behaviour measure. It was determined at the time of the study that it would be inappropriate to ask students to report present sexual behaviour. Instead, they were asked to indicate what they would do in the future regarding their sexual behaviour in certain situations.

Intentions about future behaviour were measured using closed questions. The responses were provided as a checklist. Student responses to five items in question 31 of the student post-test questionnaire were analyzed. The intended future behaviour score was based on the factor loadings (i.e., 0.50 or higher) on the items. All five items were retained.

Due to time restrictions, only the student questionnaire was pilot-tested, and only in grade 9. The pilot-test concentrated on face validity and "understandability" using a junior high class in a small town (a rural school jurisdiction). If grade 9 students could understand the questions, it was assumed that grade 11 students would also. Students gener-

ally had no problem with the wording, although their feedback led to the rephrasing of two questions. Importantly, it was found that students could complete the questionnaire within 30 minutes, well within the timeframe of the shortest class period in Alberta schools.

Procedure: Sample Selection

The following procedure was used in selecting the sample.

1. A list of all publicly funded schools teaching grade 9 and grade 11 was generated in which each school was weighted according to the number of teachers. The names of teachers with their school name appeared on these lists.
2. A sample of 250 teachers was randomly selected from each of the grade 9 and grade 11 lists, creating two groups of 250. Teacher names were then discarded, leaving only classes identified by the name of the school.
3. A sub-list of 150 randomly selected classes was generated for each of grade 9 and grade 11. (It was anticipated that 150 would be sufficient to provide a sample of 3,000 students for each of grade 9 and grade 11 for a total of 6,000. There was, however, a reserve in each grade of a further 100 randomly selected classes if required.)
4. At the same time, every superintendent of schools in the province had been invited by letter to participate in the study. The superintendents were asked to return by mail a small index card indicating "yes" or "no" regarding their jurisdictions' participation.
5. Classes in jurisdictions of those superintendents who said they would not participate were removed from the two lists of 150 randomly selected classes. Classes that were in schools in jurisdictions whose superintendents had said "yes" remained.

6. The principals of schools of the remaining classes on the 150 list were approached to participate in the study. Further attrition occurred when some of these principals declined. Telephone interviews with the participating principals produced information sheets per school containing the names of teachers teaching the grade 9 and grade 11 health-related courses, what curriculum was being used, the number of classes and the number of students in each class.
7. Classes were then selected from the principals' information sheets, according to the number of times this class had appeared on the list of 150 randomly selected classes. For example, if a specific school had come up three times on the 150 list, three classes would have been selected from that school principal's information sheet.
8. The teachers of the selected classes were telephoned to ask for their participation in the study. Teachers were generally enthusiastic; however, some declined for scheduling reasons. For example, some teachers had set conflicting dates involving public health and other community agency personnel who could not reschedule.
9. The combined attrition at the superintendent, principal and teacher levels resulted in far fewer classes than anticipated. Furthermore, the number of students per class was roughly 30% fewer than anticipated. In order to obtain the number of classes required for the study, the research design called for the same procedure as described to take place with the extra randomly selected list of 100 classes. However, there was insufficient time to implement the same procedure and meet project timelines, so the following method was used to increase sample size knowing that this might introduce a bias, rather than have a smaller sample of classes. Schools

already in the study were approached for additional classes. Also, principals whose superintendents had originally said "yes," but whose classes had not appeared on the list of 150 randomly selected classes were approached to participate.

10. Classes were originally randomly assigned to either the **treatment** group or to the **control** group. A small number of teachers elected to change their assigned condition because the previous scheduling of the HIV/AIDS instruction for their class made it impossible to remain in the originally assigned group.

Sample

The students for this sample were collected from across Alberta from 31 jurisdictions or 23% of the total number of jurisdictions (jurisdictions sampled are listed in Appendix A). The sample consisted of students from 128 schools. Students belonged either to the control or treatment group. The following number of students participated in the study: 949 pre-control, 2,149 pre-treatment, 905 post-control and 1,742 post-treatment. Students in the pre-control and pre-treatment groups were assumed for the most part to be the same students as the ones in post-control and post-treatment groups, as they were in the same classes even though individual identities were not recorded. Differences between "pre" and "post" groups were the result of one control class dropping out, four treatment classes dropping out, and the routine absences of students on the days the questionnaire was administered. The students who participated in the study were from 65 grade 9 classes and 51 grade 11 classes.

Procedure: Data Collection

At the beginning of the study in February, participating teachers were couriered a pack-

age of instruments which included 30 student pre-test questionnaires, a letter and a set of instructions. In March, the package for the participating teachers contained 30 student post-test questionnaires, one teacher questionnaire, and one class description form. Student instructions were on the front of the student questionnaire. The student post-test questionnaire appears in Appendix B.

Teachers were asked to administer the pre-test and post-test to the class as a group during the weeks specified. The **treatment** classes conducted their post-test after HIV/AIDS instruction had taken place.

To preserve confidentiality, each student placed the completed anonymous questionnaire inside an envelope which accompanied the questionnaire, sealed the envelope and handed it to the teacher.

For each administration of the questionnaire (pre-test and post-test), teachers were asked to send completed questionnaires as a bundle by pre-paid courier to the researcher.

If class questionnaires were not returned, a follow-up telephone call was made to the teacher. Follow-up continued until the data collection cut-off date.

Limitations

The following limitations should be considered when generalizing from this evaluation to specific populations.

- Confidentiality of students was of the highest priority and anonymity was maintained throughout the study. Therefore, individual student scores could not be matched before and after HIV/AIDS instruction. Instead of individual student measures of change, class measures had to be used in the initial analysis to determine the effect of HIV/AIDS instruction. Since the number of students who participated in the study is much higher than the number of classes, statistically analyzing student change scores would prob-

ably have resulted in more significant findings.

- The sample used in this study was not purely random, as intended. The teachers in the control group were largely self-selected. The sample was representative of the population to the degree that self-selection introduced bias.
- The grade 9 sample had an over-representation of rural students and under-representation of metropolitan and urban students. The grade 11 sample had over-representation of metropolitan and rural students and under-representation of urban students. In Table 3, in the section entitled "Results," the sample numbers are provided.
- The size and nature of the Alberta school system limits the possibility of evaluating a **treatment**. At the time of the study, 441,725 Alberta students were enrolled in grades 1 to 12; there were 24,973 full-time teachers; 2,003 schools; and 140 jurisdictions. These large numbers presented administrative challenges. As well, the local autonomy of the school boards prevented a controlled **treatment**. Jurisdictions chose instructional strategies for offering HIV/AIDS instruction that were most appropriate for their students.

Operationalization of Research Questions

The class was the original unit of analysis for this study. Grade 9 and 11 classes participating in the study were placed into **control** and **treatment** groups and their responses to pre-test and post-test questionnaires were analyzed. To determine whether HIV/AIDS instruction was related to higher levels of knowledge, more tolerant attitudes and intentions about sexual behaviour that would more likely protect health in the future, class pre-test and post-test scores were used. For both grade 9 and grade 11 classes, the post-

treatment groups had significantly higher levels of knowledge and more tolerant attitudes than the other three groups. For grade 9 classes HIV/AIDS instruction was not associated with intentions about future behaviour, whereas it was for grade 11 classes.

HIV/AIDS instruction was thus demonstrated to have a statistically significant effect. The effects could therefore be determined of specific instructional strategies and HIV/AIDS-related student learning print resources on student knowledge and attitudes, including intentions about future behaviour (for grade 11, not grade 9). Students were used as the unit for this analysis, comparing the students after instruction to the **control** students who had not had HIV/AIDS instruction. The effects of strategies and resources on grade 9 student knowledge and attitudes were measured. Intentions about future behaviour were not included in the grade 9 student analysis, as the findings for grade 9 classes showed that HIV/AIDS instruction was not associated with intentions about future behaviour. The effects of strategies and resources on grade 11 student knowledge and attitudes, including intentions about future behaviour, were measured.

The first broad research question developed for this study was:

What are the effects of HIV/AIDS instructional strategies on knowledge and attitudes, including intentions about future behaviour, of junior and senior high school students?

The first broad research question was put into measurable terms (operationalized) using three **overall** instructional strategies. What effects did HIV/AIDS instruction offer by three overall strategies have on grade 9 students, knowledge and attitudes, and grade 11 students' knowledge and attitudes (including intentions about future behaviour)? The following three strategies were designated as the **overall** strategies:

- 1) **primarily by a teacher in regular classroom activities;**
- 2) **primarily by a guest in classroom activities, that is, a health professional, a speaker from a community HIV/AIDS organization, or a person who has HIV/AIDS;**
- 3) **primarily by a teacher in an alternative to regular classroom activities; e.g., everyone in the gym for a presentation.**

The effects of the three **overall** strategies of HIV/AIDS instruction were analyzed. Then, the effects of the three strategies with different combinations of support (designated as the **combination** strategies) were analyzed. The **combination** strategies were:

- 1) **primarily by a teacher in regular classroom activities with**
 - a) audio-visual resources (films or videos)
 - b) guests
 - c) print resources
 - d) audio-visual resources and guests
 - e) audio-visual resources and print resources
 - f) guests and print resources
 - g) audio-visual resources, guests, and print resources;
- 2) **primarily by a guest in classroom activities, that is, a health professional, a speaker from a community HIV/AIDS organization, or a person who has HIV/AIDS, with**
 - a) audio-visual resources
 - b) print resources
 - c) audio-visual resources and print resources; and
- 3) **primarily by a teacher in an alternative to regular classroom activities (e.g., everyone in the gym for a presentation) with**
 - a) audio-visual resources
 - b) guests

- c) print resources
- d) audio-visual resources and guests
- e) audio-visual resources and print resources
- f) guests and print resources
- g) audio-visual resources, guests, and print resources.

The second broad research question developed for this study was:

What are the effects of supporting HIV/AIDS instruction with specific print student learning resources on knowledge and attitudes, including intentions about future behaviour, of junior and senior high school students?

The second broad research question was put into measurable terms (operationalized) as follows. What effects did the four different uses of two specific resources or combinations of the two, have on grade 9 student knowledge and attitudes (excluding intentions about future behaviour) and grade 11 student knowledge and attitudes (including intentions about future behaviour)?

It was planned in this study to measure the effects of the uses of each of three student learning print resources or combinations of them. The resources were not considered to be representative of those that were available at the time of the study; they included the two provided for schools through the AIDS Program and were therefore being assessed. The three resources were:

- 1) *AIDS: What Young Adults Should Know*
- 2) *AIDS: The Choices and Chances*
- 3) *You Almost Have to Choose to Get AIDS*

You Almost Have to Choose to Get AIDS was produced by a large metropolitan school board for their specific use. Since a limited number of students would have used this resource and not had access to other resources, the resource was used as a validity check. The booklet was not widely distrib-

uted and the small number of students reporting that they had seen it validates the student reporting of it, as well as the student reporting of the other two resources. Since a limited number of students identified *You Almost Have to Choose to Get AIDS*, inferences about it could not be made and the resource was withdrawn from the data analysis of the study.

The resources were used as support for the instructional strategies that were selected for providing HIV/AIDS instruction. The resources were used in four different ways and the effects of each were measured. The uses of the resources were:

- 1) **seen** — having seen the resource
- 2) **read** — having read most or all of the resource, excluding “not at all” or “scanned a little”
- 3) **used** — having used the resource in class(es)
- 4) **kept** — having used the resource in class(es) and been given a copy of the resource to keep.

Although the students were provided with the above explanations of the uses, there could be a variety of interpretations about the categories, “**used**” and “**kept**.” For instance, students may have attached different meanings to “having used the resource.” Some students may have interpreted “**used**” in class to mean that the teacher handed the resource to them, while others may have interpreted the phrase to mean that the teacher went through it page-by-page in class.

The students were asked to indicate if they had “**seen**” and “**read**” the resources without reference to the classroom. However, students were asked to indicate if they had “**used**” and “**kept**” the resources specifically in reference to the classroom. Although the four uses seem to be arranged hierarchically, this was not the intent for measuring effects of the resources.

Data Analysis

The data collected in the study were analyzed using two types of statistical tests. The Chi-Square statistical test was used to analyze responses to questions about sources of information by the **treatment** students on pre-test and post-test questionnaires. Students were requested, before and after HIV/AIDS instruction, to identify main and second sources of information for human sexuality, HIV/AIDS, and STD. Students also reported, before and after instruction, their preferred sources of information for the three topics and rated how well each source was doing in providing HIV/AIDS information. The Chi-Square statistical test was used to compare student reports before and after HIV/AIDS instruction. The Chi-Square measure is one of general tendency and does not determine the derivation of the significant differences.

Student responses were also analyzed using one-way analysis of variance with the Scheffe test of significance. These statistical tests were used to analyze: a) the effects of HIV/AIDS instruction on knowledge and attitudes of pre-treatment, pre-control, post-treatment, and post-control classes; b) the effects on students' knowledge and attitudes, including intentions about future behaviour, of three overall instructional strategies, and combinations of the three strategies with supports; and c) the effects on students' knowledge and attitudes, including intentions about future behaviour, of four different uses of two specific student print learning resources. The alpha level for statistical significance was set at $\leq .05$.

For the purposes of this study, grade 9 and grade 11 students were considered separately. This was appropriate since the students in the two grades are at different developmental levels, especially in relation to sexuality, and there was a different human sexuality curriculum for grade 9 and grade 11. Other research (Bell and Coughy,

1980; Hoffereth, Kahn, and Baldwin, 1987; King, Beazley, Warren, Hankins, Robertson, and Radford, 1988) has indicated that grade 11 students are significantly more sexually active than grade 9 students.

RESULTS

Introduction

This section includes: a description of the sample; details of the findings on students' main and preferred sources of information for human sexuality, HIV/AIDS, and STD information; their ratings of the job each source is doing in providing HIV/AIDS information; the findings on the effects of HIV/AIDS instruction on students' knowledge and attitudes including intentions about future behaviour; and the summary results for research questions 1 and 2.

Description of Sample

The sample for this study included grade 9 pre-control and post-control students as well as pre-treatment and post-treatment students; and grade 11 pre-control and post-control students along with pre-treatment and post-treatment students. The number of questionnaires received from grade 9 and grade 11 students who participated in the study are given in Table 1 below.

Table 1

Student Sample

| Grade | Pre-control | Post-control | Pre-treatment | Post-treatment | Total |
|--------------|-------------|--------------|---------------|----------------|--------------|
| 9 | 639 | 620 | 1,233 | 949 | 3,441 |
| 11 | 310 | 285 | 916 | 793 | 2,304 |
| Total | 949 | 905 | 2,149 | 1,742 | 5,745 |

Fifty-one (51) percent of both grade 9 and grade 11 students were male; 49% of grade 9 and grade 11 students were female.

Table 2

Students' Ages: Pre and Post-test Questionnaires

| Age | Frequency | Percentage of Sample |
|--------------|--------------|----------------------|
| 14 | 2,349 | 41% |
| 15 | 1,111 | 19% |
| 16 | 1,735 | 30% |
| 17 | 550 | 10% |
| Total | 5,745 | 100% |

The students' ages ranged from 14 years to 17 years. The students' ages are presented in Table 2. The largest percentage of students was 14 years old.

The students who participated in this study resided throughout the province of Alberta. For the purposes of this study, the school jurisdictions in Alberta were categorized as “metropolitan,” “urban” and “rural.” For a list of the jurisdictions in each category, see Appendix A. The metropolitan category included Calgary and Edmonton along with surrounding centres because of the urban influences on students who live in surrounding areas. The urban category included other cities but no surrounding centres. The rural designation was applied to all other jurisdictions. Students who participated in the study were enrolled in schools in 31 jurisdictions out of a total of 140 jurisdictions in the province, or in 23% of all jurisdictions.

One way to determine representativeness of students was to stratify those who participated in the study and compare them to the

provincial population. Representativeness was tested on the post-test experimental and control students, as their responses were analyzed to answer the two research questions. The number of students from metropolitan, urban and rural jurisdictions is outlined in Table 3.

The grade 9 sample of students who participated in the study did not differ from the general grade 9 population in terms of type of jurisdiction, as indicated by the non-significant Chi-square.

When the grade 11 sample of students who took part in the study was compared to the general grade 11 population in the province, there was a significant difference between the sample and the general population. This finding deters, somewhat, from generalizing from the grade 11 results that are reported in this study.

Table 3

Student Study Sample and Provincial Student Enrollment in Metropolitan, Urban, and Rural Jurisdictions

| Grade 9 | Study Sample | | Provincial Student Enrollment | |
|--------------|--------------|---------------------|-------------------------------|---------------------|
| | Number | Percentage of Total | Number | Percentage of Total |
| Metropolitan | 638 | 41% | 16,811 | 52% |
| Urban | 236 | 15% | 4,353 | 13% |
| Rural | 692 | 44% | 11,250 | 35% |
| Total | 1,566 | 99% | 32,414 | 100% |

Chi-Square = 4.9

| Grade 11 | Study Sample | | Provincial Student Enrollment | |
|--------------|--------------|---------------------|-------------------------------|---------------------|
| | Number | Percentage of Total | Number | Percentage of Total |
| Metropolitan | 643 | 60% | 17,350 | 56% |
| Urban | 42 | 4% | 4,237 | 14% |
| Rural | 379 | 35% | 9,488 | 30% |
| Total | 1,064 | 100% | 31,075 | 100% |

Chi-Square = 8.6*

*significant at or beyond the .05 level

Sources of Information for Treatment Students

Introduction

This study focused on HIV/AIDS instruction in the schools in the Province of Alberta. This section of the study outlines grade 9 and grade 11 student reports of their actual first and second (or two main) sources, as well as their preferred source of information about human sexuality, HIV/AIDS, and other STD before and after HIV/AIDS instruction. The responses to questions 8, 9, and 10 from pre-treatment students were compared to their responses to the same questions post-treatment. There were seven sources of information identified in the questionnaire for the students (the category "other" was included as an eighth source but these responses were too limited to be analyzed). The student responses before and after HIV/AIDS instruction were analyzed using the Chi-Square statistical test.

In addition, students were requested to rate how well, the "job," each source of information was doing in informing them about HIV/AIDS and its prevention. The response categories of very poor, fairly poor, fairly good and very good were used. The students' rating of information before and after HIV/AIDS instruction was also analyzed using the Chi-Square statistical test.

Comparisons of students' responses before and after HIV/AIDS instruction were completed to determine if instruction changed students' perceptions about their sources of information and their ratings of the sources. The findings are included in the following tables. A discussion precedes each table of findings.

Actual Sources of Information about Human Sexuality

As indicated by the Chi-Square measure, there was a significant difference in the percentages of students that identified particular sources as their first source of information about human sexuality before and after HIV/AIDS instruction. There was no significant difference in the percentages of students reporting their second actual source. For approximately 75% of all students, the main source of information about human sexuality was the school before and after HIV/AIDS instruction. The family was identified as the second source and remained the second source of information about human sexuality for at least 36% of the students. Friends were identified as the next major source of information. Media (TV/radio and magazines/newspapers/books), health professionals and religious institutions were identified more infrequently as actual sources of information.

Table 4

Grade 9 and Grade 11 Students' Reports of First and Second Source of Information about Human Sexuality before and after HIV/AIDS Instruction

| Sources for Human Sexuality Info | Before HIV/AIDS Instruction | | | After HIV/AIDS Instruction | | |
|---|-----------------------------|--------|------------|---|--------|-------|
| | First | Second | Total | First | Second | Total |
| Grade 9 (Before N = 1,230, After N = 945) | | | | | | |
| Family | 25% | 18% | 43% | 19% | 20% | 39% |
| Friends | 13% | 15% | 28% | 11% | 15% | 26% |
| Church/Synagogue | 0% | 1% | 1% | 1% | 1% | 2% |
| School | 49% | 26% | 75% | 57% | 25% | 82% |
| Doctor/Nurse/Clinic | 2% | 6% | 8% | 3% | 6% | 9% |
| TV/radio | 6% | 16% | 22% | 5% | 17% | 22% |
| Magazines/Papers/Books | 3% | 14% | 17% | 3% | 14% | 17% |
| Other | 2% | 4% | 6% | 1% | 2% | 3% |
| Total | 100% | 100% | 200% | 100% | 100% | 200% |
| | | | Chi-Square | before-after first source = 22.5* before-after second source = 7.3 | | |
| Grade 11 (Before N = 915, After N = 790) | | | | | | |
| Family | 24% | 17% | 41% | 20% | 16% | 36% |
| Friends | 15% | 16% | 31% | 16% | 16% | 32% |
| Church/Synagogue | 0% | 1% | 1% | 0% | 1% | 1% |
| School | 42% | 24% | 66% | 50% | 23% | 73% |
| Doctor/Nurse/Clinic | 4% | 7% | 11% | 2% | 7% | 9% |
| TV/radio | 7% | 16% | 23% | 6% | 18% | 24% |
| Magazines/Papers/Books | 5% | 16% | 21% | 4% | 17% | 21% |
| Other | 3% | 3% | 6% | 2% | 2% | 4% |
| Total | 100% | 100% | 200% | 100% | 100% | 200% |
| | | | Chi-Square | before-after first source = 17.0* before-after second source = 3.9 | | |
| *significant at or beyond the .05 level | | | | | | |

Actual Sources of Information about HIV/AIDS

As indicated by the Chi-Square measure, there was a significant difference in percentages of students that identified particular sources as their first and second sources of information about HIV/AIDS, before and after HIV/AIDS instruction. The main source of information about HIV/AIDS for both grade 9 and grade 11 students was the school. The percentage of students that identified the school as a major source of information in-

creased from at least 62 to 88% as a result of the HIV/AIDS education that they received. For both grades, the media including TV/radio and magazines/newspapers/books were identified as the next major sources of information. However, the percentage of students who reported these as first or second sources of information decreased after receiving HIV/AIDS education. Family, friends, health professionals and religious institutions were less frequently identified as actual sources of information.

Table 5

Grade 9 and Grade 11 Students' Reports of First and Second Source of Information about HIV/AIDS before and after HIV/AIDS Instruction

| Sources for HIV/AIDS Info | Before HIV/AIDS Instruction | | | After HIV/AIDS Instruction | | |
|---|-----------------------------|--------|--|----------------------------|--------|-------|
| | First | Second | Total | First | Second | Total |
| Grade 9 (Before N = 1,230, After N = 945) | | | | | | |
| Family | 12% | 10% | 22% | 8% | 11% | 19% |
| Friends | 3% | 6% | 9% | 2% | 5% | 7% |
| Church/Synagogue | 0% | 0% | 0% | 1% | 0% | 1% |
| School | 47% | 18% | 65% | 69% | 18% | 87% |
| Doctor/Nurse/Clinic | 4% | 7% | 11% | 4% | 8% | 12% |
| TV/radio | 24% | 31% | 55% | 12% | 38% | 50% |
| Magazines/Papers/Books | 8% | 24% | 32% | 3% | 18% | 21% |
| Other | 2% | 4% | 6% | 1% | 2% | 3% |
| Total | 100% | 100% | 200% | 100% | 100% | 200% |
| | Chi-Square | | before-after first source = 132.5* before-after second source = 27.3* | | | |
| Grade 11 (Before N = 915, After N = 790) | | | | | | |
| Family | 7% | 7% | 14% | 4% | 8% | 12% |
| Friends | 2% | 4% | 6% | 2% | 5% | 7% |
| Church/Synagogue | 0% | 1% | 1% | 0% | 0% | 0% |
| School | 40% | 22% | 62% | 73% | 15% | 88% |
| Doctor/Nurse/Clinic | 5% | 6% | 11% | 3% | 8% | 11% |
| TV/radio | 34% | 27% | 61% | 11% | 39% | 50% |
| Magazines/Papers/Books | 11% | 29% | 40% | 5% | 23% | 28% |
| Other | 1% | 4% | 5% | 2% | 2% | 4% |
| Total | 100% | 100% | 200% | 100% | 100% | 200% |
| | Chi-Square | | before-after first source = 209.4* before-after second source = 42.1* | | | |

*significant at or beyond the .05 level

Actual Sources of Information about STD

Similar to the findings for HIV/AIDS sources of information, the Chi-Square measure indicated that there was a significant difference in percentages of students that identified particular sources as their first and second sources of information about STD, before and after HIV/AIDS instruction. The main source of information about STD for both grade 9 and grade 11 students was, overwhelmingly,

the school. The percentage of students that identified the school as a major source of information increased from 74 to about 85% as a result of the HIV/AIDS education they received. For both grades, the media (magazines/papers/books followed by TV/radio) were identified as the next major sources of information. Health professionals, family, friends and religious institutions were identified infrequently as actual sources of information.

Table 6

Grade 9 and Grade 11 Students' Reports of First and Second Source of Information about STD before and after HIV/AIDS Instruction

| Sources for STD Info | Before HIV/AIDS Instruction | | | After HIV/AIDS Instruction | | |
|---|-----------------------------|--------|------------|---|--------|-------|
| | First | Second | Total | First | Second | Total |
| Grade 9 (Before N = 1,230, After N = 945) | | | | | | |
| Family | 8% | 9% | 17% | 6% | 9% | 15% |
| Friends | 5% | 6% | 11% | 4% | 8% | 12% |
| Church/Synagogue | 0% | 1% | 1% | 1% | 0% | 1% |
| School | 60% | 14% | 74% | 69% | 17% | 86% |
| Doctor/Nurse/Clinic | 7% | 12% | 19% | 8% | 10% | 18% |
| TV/radio | 9% | 23% | 32% | 7% | 26% | 33% |
| Magazines/Papers/Books | 8% | 28% | 36% | 5% | 25% | 30% |
| Other | 3% | 7% | 10% | 0% | 5% | 5% |
| Total | 100% | 100% | 200% | 100% | 100% | 200% |
| | | | Chi-Square | before-after first source =33.7* before-after second source =13.5* | | |
| Grade 11 (Before N = 915, After N = 790) | | | | | | |
| Family | 5% | 7% | 12% | 4% | 9% | 13% |
| Friends | 5% | 7% | 12% | 3% | 8% | 11% |
| Church/Synagogue | 0% | 1% | 1% | 1% | 0% | 1% |
| School | 59% | 15% | 74% | 73% | 12% | 85% |
| Doctor/Nurse/Clinic | 10% | 13% | 23% | 7% | 11% | 18% |
| TV/radio | 8% | 21% | 29% | 5% | 23% | 28% |
| Magazines/Papers/Books | 11% | 30% | 41% | 6% | 34% | 40% |
| Other | 2% | 6% | 8% | 1% | 3% | 4% |
| Total | 100% | 100% | 200% | 100% | 100% | 200% |
| | | | Chi-Square | before-after first source = 38.8* before-after second source=17.1* | | |

*significant at or beyond .05 level

Preferred Source of Information about Human Sexuality

Where do students prefer to get information about human sexuality? As indicated by the Chi-Square measure, there was a significant difference in the percentages of students that identified particular sources as their preferred source of information about human sexuality before and after HIV/AIDS instruction.

The source that 45 to 55% per cent of grade 9 and grade 11 students most want to get information about human sexuality from is the school. The family was the second preferred source of information as indicated by 15 to 19% of the students. Friends, religious institutions, the media (magazines/papers/books and TV/radio) and health professionals were less frequently identified as preferred sources of information about human sexuality.

Table 7

Grade 9 and Grade 11 Students' Reports of Preferred Source of Information about Human Sexuality before and after HIV/AIDS Instruction

| Preferred Source of Human Sexuality Info | Before HIV/AIDS Instruction | After HIV/AIDS Instruction |
|--|-----------------------------|---------------------------------------|
| Grade 9 | (N = 1,230) | (N = 945) |
| Family | 19% | 16% |
| Friends | 8% | 7% |
| Church/Synagogue | 1% | 1% |
| School | 49% | 55% |
| Doctor/Nurse/Clinic | 12% | 12% |
| TV/radio | 4% | 4% |
| Magazines/Papers/Books | 5% | 3% |
| Other | 2% | 2% |
| Total | 100% | 100% |
| | Chi-Square | before-after preferred source = 15.8* |
| Grade 11 | (N = 915) | (N = 790) |
| Family | 18% | 15% |
| Friends | 9% | 9% |
| Church/Synagogue | 1% | 1% |
| School | 45% | 55% |
| Doctor/Nurse/Clinic | 14% | 9% |
| TV/radio | 4% | 4% |
| Magazines/Papers/Books | 6% | 4% |
| Other | 3% | 3% |
| Total | 100% | 100% |
| | Chi-Square | before-after preferred source = 23.2* |
| *significant at or beyond .05 level | | |

Preferred Source of Information about HIV/AIDS

As indicated by the Chi-Square measure, there was a significant difference in the percentages of students that identified particular sources as their preferred source of information about HIV/AIDS before and after HIV/AIDS instruction. The source that 50

to 64% of grade 9 and grade 11 students most want to get information about HIV/AIDS from is the school. The second preferred source of information identified by 18 to 30% of the students was health professionals. Family, friends, religious institutions, and media (TV/radio and magazines/papers/books) were identified infrequently as preferred sources of information.

Table 8

Grade 9 and Grade 11 Students' Reports of Preferred Source of Information about HIV/AIDS before and after HIV/AIDS Instruction

| Preferred Source for HIV/AIDS Info | Before HIV/AIDS Instruction | After HIV/AIDS Instruction |
|------------------------------------|--|----------------------------|
| Grade 9 | (N = 1,230) | (N = 945) |
| Family | 9% | 6% |
| Friends | 2% | 3% |
| Church/Synagogue | 0% | 1% |
| School | 52% | 59% |
| Doctor/Nurse/Clinic | 24% | 20% |
| TV/radio | 7% | 7% |
| Magazines/Papers/Books | 5% | 3% |
| Other | 1% | 1% |
| Total | 100% | 100% |
| | Chi-Square before-after preferred source = 25.9* | |
| Grade 11 | (N = 915) | (N = 790) |
| Family | 5% | 4% |
| Friends | 2% | 2% |
| Church/Synagogue | 1% | 1% |
| School | 50% | 64% |
| Doctor/Nurse/Clinic | 30% | 18% |
| TV/radio | 7% | 6% |
| Magazines/Papers/Books | 4% | 4% |
| Other | 1% | 1% |
| Total | 100% | 100% |
| | Chi-Square before-after preferred source = 43.1* | |

*significant at or beyond .05 level

Preferred Source of Information about STD

As indicated by the Chi-Square measure, there was a significant difference in the percentages of students that identified particular sources as their preferred source of information about STD before and after HIV/AIDS instruction. The source that 49 to

62% of grade 9 and grade 11 students most prefer to get information about STD from is the school. Health professionals were identified as the second preferred source of information by lower percentages, 20 to 30%, of students. Family, friends, religious institutions, media (TV/radio and magazines/papers/books) were less frequently identified as preferred sources of information.

Table 9

Grade 9 and Grade 11 Students' Reports of Preferred Source of Information about STD before and after HIV/AIDS Instruction

| Preferred Source for STD Info | Before HIV/AIDS Instruction | After HIV/AIDS Instruction |
|-------------------------------|-----------------------------|---------------------------------------|
| Grade 9 | (N = 1,230) | (N = 945) |
| Family | 9% | 6% |
| Friends | 2% | 3% |
| Church/Synagogue | 0% | 1% |
| School | 51% | 59% |
| Doctor/Nurse/Clinic | 26% | 20% |
| TV/radio | 5% | 5% |
| Magazines/Papers/Books | 5% | 4% |
| Other | 2% | 2% |
| Total | 100% | 100% |
| | Chi-Square | before-after preferred source = 26.3* |
| Grade 11 | (N = 915) | (N = 790) |
| Family | 4% | 4% |
| Friends | 2% | 2% |
| Church/Synagogue | 1% | 1% |
| School | 49% | 62% |
| Doctor/Nurse/Clinic | 30% | 20% |
| TV/radio | 7% | 5% |
| Magazines/Papers/Books | 6% | 5% |
| Other | 1% | 1% |
| Total | 100% | 100% |
| | Chi-Square | before-after preferred source = 34.3* |

*significant at or beyond .05 level

Student Rating of How Well (“Job”) Sources of Information Are Providing HIV/AIDS Information

With the Chi-Square measures there were significant differences, before and after HIV/AIDS instruction, in the percentages of grade 9 and grade 11 students’ ratings of the job school, health professionals, and TV/radio were doing in providing HIV/AIDS information. As well, the ratings of friends was significantly more positive for grade 11 students after HIV/AIDS instruction. No significant decreases in the rating of sources were found

to be related to HIV/AIDS education.

Before there HIV/AIDS instruction, over 85 percent of grade 9 and 11 students rated the school as doing a fairly good to very good job of providing HIV/AIDS information. Over 95 percent rated the school as doing a fairly good to very good job after their HIV/AIDS instruction.

In descending order, the students’ rating of the other sources as doing a fairly good to very good job were: the media (TV/radio and magazines/papers/books), health professionals, family, friends, and religious institutions.

Table 10

Grade 9 and Grade 11 Students’ Rating of Job That Sources of Information Are Doing in Informing Students about HIV/AIDS and Its Prevention before and after HIV/AIDS Instruction

| Sources | Percentages of Students Reporting Rating | | | | | | | | Chi-Square |
|---|--|-------|-------------|-------|-------------|-------|-----------|-------|------------|
| | Very Poor | | Fairly Poor | | Fairly Good | | Very Good | | |
| | Before | After | Before | After | Before | After | Before | After | |
| Grade 9 (Before N = 1,230, After N = 945) | | | | | | | | | |
| Family | 16% | 18% | 29% | 28% | 44% | 45% | 11% | 9% | 4.1 |
| Friends | 8% | 16% | 40% | 37% | 36% | 41% | 6% | 6% | 6.3 |
| Church/ Synagogue | 63% | 57% | 21% | 25% | 11% | 14% | 5% | 4% | 8.8 |
| School | 3% | 2% | 10% | 3% | 44% | 28% | 43% | 67% | 134.5* |
| Doctor/Nurse/ Clinic | 18% | 15% | 21% | 18% | 33% | 37% | 28% | 31% | 10.2* |
| TV/radio | 6% | 5% | 23% | 16% | 50% | 56% | 22% | 23% | 20.4* |
| Magazines/ Papers/Books | 8% | 6% | 21% | 19% | 49% | 52% | 21% | 23% | 5.6 |
| Grade 11 (Before N = 915, After N = 790) | | | | | | | | | |
| Family | 19% | 16% | 28% | 29% | 41% | 46% | 11% | 9% | 5.2 |
| Friends | 15% | 12% | 40% | 35% | 39% | 46% | 6% | 7% | 12.7* |
| Church/ Synagogue | 58% | 51% | 25% | 29% | 12% | 16% | 5% | 4% | 9.5 |
| School | 3% | 1% | 12% | 1% | 48% | 20% | 37% | 78% | 321.4* |
| Doctor/Nurse/ Clinic | 11% | 7% | 22% | 16% | 38% | 42% | 30% | 36% | 19.2* |
| TV/radio | 4% | 1% | 15% | 14% | 53% | 55% | 28% | 29% | 1.6* |
| Magazines/ Papers/Books | 3% | 1% | 13% | 14% | 53% | 55% | 31% | 30% | 10.0 |

*significant at or beyond .05 level

Summary

There were significant differences in the percentages of students identifying particular actual and preferred sources of information for human sexuality, HIV/AIDS and STD information when responses were compared before and after HIV/AIDS instruction. There were also significant differences in the percentages of students' ratings of the job the various sources were doing in providing HIV/AIDS information.

However, the order of the seven sources that resulted from analyzing the students' responses regarding actual sources of information, preferred sources of information, and ratings of the job that the sources were doing was not significantly different when students' responses were compared before and after instruction.

Actual (First and Second) Sources of Information

Grade 9 and 11 students said that they received human sexuality information mainly from the school. After the school, students said the family was their next source for human sexuality information. As well, the school was the students' first source for HIV/AIDS information, with television and radio as the next source. Students identified the school as their main source for other STD information. Following the school; magazines, newspapers and books were reported as students' next source for STD information.

Preferred Sources of Information

Grade 9 and 11 students reported that they preferred to get information from the school on human sexuality, HIV/AIDS, and other STD. The family was the next preferred source for human sexuality information. Health professionals followed the school as the preferred source for both HIV/AIDS and other STD information.

Rating of Providing HIV/AIDS Information

Grade 9 and 11 students said that schools provided HIV/AIDS information well. Before their HIV/AIDS instruction, over 85% of the students rated the school as doing a fairly good to very good job; over 95% rated the school as doing a fairly good to very good job after their HIV/AIDS instruction.

Conclusion

The students reported that they received information about all three topics (human sexuality, HIV/AIDS, and other STD) from schools and they reported that they preferred the school provide the information. They next preferred the family as the source, following the school, for human sexuality information and they reported that in actuality the family was the next source. After the school, they would prefer to receive information on HIV/AIDS and other STD from health professionals and they said that they received it from the media. This discrepancy may be due to the ease of accessibility of the media as compared to health professionals. It is interesting that friends were not frequently identified as primary or secondary actual or preferred sources of information for any of the topics which is inconsistent with findings reported in other studies.

The school was the source that received the best ratings by students for providing them information about HIV/AIDS. A very large majority of the students rated the "job" the school was doing as very good or fairly good.

Effects of HIV/AIDS Instruction on Knowledge and Attitudes

Introduction

The purpose of this study was to determine the effects of HIV/AIDS instructional strategies and specific HIV/AIDS-related student print learning resources on grade 9 and grade 11 students' knowledge and attitudes, including intentions about future behaviour. Prior to analyzing the effects of instructional strategies and resources, it was necessary to determine the effects of having received HIV/AIDS instruction. A four-way comparison of pre-control, pre-treatment, post-control and post-treatment groups was completed in order to establish if having HIV/AIDS instruction was related to a higher level of knowledge and a more tolerant attitude, including intentions about future behaviour. Since individual students' ano-

nymity was preserved throughout the study, the class was used as the unit for this analysis.

Grade 9 Classes

The four groups (pre-treatment, pre-control, post-treatment and post-control) were compared to determine if receiving HIV/AIDS instruction was related to an increase in knowledge, a more tolerant attitude, and intentions about future behaviour. The post-treatment group had the highest mean measure on knowledge and attitudes. There were no significant differences among the other three groups (pre-treatment, pre-control, and post-control). Thus, treatment in the form of HIV/AIDS instruction was related to a significantly higher level of knowledge and more tolerant attitudes than for each of the groups where there had not been instruction. However, HIV/AIDS instruction was **not** associated with intentions about future behaviour. Therefore, no further analysis in this area was appropriate for the grade 9 students.

Table 11

Pre-treatment, Pre-control, Post-treatment and Post-Control Differences in Knowledge, Attitudes, and Intentions about Future Behaviour for Grade 9 Classes

| Components | F | Groups with Significant Differences |
|-----------------------------------|--------|---|
| Knowledge | 15.60* | post-treatment is significantly better than pre-treatment, pre-control and post-control |
| Attitudes | 3.79* | post-treatment is significantly better than pre-treatment, pre-control and post-control |
| Intentions about Future Behaviour | 1.69 | groups are not significantly different from each other |
| N = 117 | | |

*significant at or beyond the .05 level

Grade 11 Classes

For grade 11 classes, the four groups (pre-treatment, pre-control, post-treatment and post-control) were also compared to determine if having HIV/AIDS education was related to an increase of knowledge, a more tolerant attitude and more likelihood to report intentions of healthy sexual behaviour in the future. In all cases, classes in the post-treatment group were significantly different from classes in the other three groups while classes in the other three groups were not

significantly different from each other. The post-treatment group had the highest mean on knowledge, attitudes, and intentions about future behaviour. Thus, for the grade 11 classes, treatment in the form of HIV/AIDS instruction was related to a significantly higher level of knowledge, more tolerant attitudes, and students were more likely to report intentions about healthy sexual behaviour in the future when compared to each of the groups where there had not been instruction.

Table 12

Pre-treatment, Pre-control, Post-treatment and Post-Control Differences in Knowledge, Attitudes, and Intentions about Future Behaviour for Grade 11 Classes

| Components | F | Groups with Significant Differences |
|-----------------------------------|--------|---|
| Knowledge | 21.36* | post-treatment is significantly better than pre-treatment, pre-control and post-control |
| Attitudes | 4.81* | post-treatment is significantly better than pre-treatment, pre-control and post-control |
| Intentions about Future Behaviour | 6.64* | post-treatment is significantly better than pre-treatment, pre-control and post-control |

N = 116

*significant at or beyond the .05 level

Summary

Classes that received treatment in the form of HIV/AIDS instruction had significantly higher levels of knowledge and reported more tolerant attitudes than did classes which had not had instruction in pre-treatment, pre-control, and post-control groups. Furthermore, classes in pre-treatment, pre-control, and post-control groups were not significantly different from each other.

For grade 9 classes, HIV/AIDS instruction was related to a higher level of knowledge and more tolerant attitudes but **not** intentions about future behaviour when compared to classes who had not received HIV/AIDS instruction. This was not true for grade 11

classes. For the grade 11 classes, HIV/AIDS instruction was related to a significantly higher level of knowledge, more tolerant attitudes, and students were more likely to report intentions of healthy sexual behaviour in the future.

Research Question 1

What are the effects of HIV/AIDS instructional strategies on knowledge and attitudes, including intentions of future behaviour, of junior and senior high students?

Introduction

After completing an analysis of class data and establishing that HIV/AIDS instruction did have positive effects on knowledge and attitudes, excluding intentions about future behaviour at the grade 9 level and including intentions about future behaviour at the grade 11 level, further analysis could be conducted. The effects of specific instructional strategies on students' knowledge and attitudes were determined.

Overall instructional strategies included three different methods of providing HIV/AIDS instruction. They were: primarily by a teacher in regular classroom activities; primarily by a guest in classroom activities; and primarily by teacher in an alternative to regular classroom activities. The strategies are discussed in detail in the "Methods" section.

Combinations of instructional strategies included the three **overall** strategies, com-

bined with support of various kinds. The effects of the **overall** and **combination** strategies were measured on grade 9 and grade 11 students, post-treatment, compared with post-control students who had not received HIV/AIDS instruction. The following pages provide a discussion and the findings for Research Question 1. A section entitled "Summary" provides conclusions about the findings.

Overall Strategies — Grade 9

The effects of three **overall** strategies of HIV/AIDS instruction on grade 9 student knowledge and attitudes are reported in Table 13. Students who received HIV/AIDS instruction had greater HIV/AIDS knowledge if the instruction was delivered by any one of the three **overall** strategies (i.e., primarily by a teacher; by a guest; or by a teacher in an alternative to the regular classroom) in comparison to students who did not receive instruction. Grade 9 students receiving instruction showed more tolerant attitudes if HIV/AIDS instruction was offered primarily by a teacher in regular classroom activities or primarily by a teacher in an alternative to regular classroom activities.

Table 13

Effects on Grade 9 Students' Knowledge and Attitudes of **Overall** Strategies of HIV/AIDS Instruction

| Components | F | Findings Related to Strategies |
|-----------------------------------|--------|--|
| Knowledge | 28.22* | primarily teacher in regular classroom or alternative, or guest in classroom is significantly better than no instruction |
| Attitudes | 7.05* | primarily teacher in regular classroom or in alternative is significantly better than no instruction |
| Intentions about Future Behaviour | | could not be analyzed, see page 23 for explanation |

N = 1490

*significant at or beyond the .05 level

Overall Strategies — Grade 11

The effects of the three **overall** strategies of HIV/AIDS instruction on grade 11 students' knowledge, attitudes, and intentions about future behaviour are reported in Table 14. Grade 11 students who had HIV/AIDS instruction provided primarily by a teacher or primarily by a guest in classroom activities,

had greater HIV/AIDS knowledge. HIV/AIDS instruction provided primarily by a teacher in regular classroom activities, was more likely associated with intentions about healthy sexual behaviour in the future, in comparison to students who did not receive instruction. Other student attitudes were not significantly related to instructional strategies.

Table 14

Effects on Grade 11 Students' Knowledge, Attitudes, and Intentions about Future Behaviour of **Overall** Strategies of HIV/AIDS Instruction

| Components | F | Findings Related to Strategies |
|---|--------|---|
| Knowledge | 21.85* | primarily teacher or guest in classroom is significantly better than no instruction |
| Attitudes | 2.88 | strategies are not significantly better than each other or no instruction |
| Intentions about Future Behaviour | 3.58* | primarily teacher in regular classroom is significantly better than no instruction |
| N = 1040 | | |
| *significant at or beyond the .05 level | | |

Combinations of Strategies — Grade 9

The effects of the **combinations** of strategies with additional supports on grade 9 students' knowledge and attitudes are reported in Table 15. In comparison to grade 9 students who had not received HIV/AIDS instruction,

those who did had increased knowledge if HIV/AIDS instruction was provided primarily by a teacher in regular classroom activities with the following supports: audio-visual resources, guests, and print resources.

Table 15

Effects on Grade 9 Students' Knowledge and Attitudes of **Combinations** of Strategies of HIV/AIDS Instruction

| Components | F | Findings Related to Strategies |
|---|-------|--|
| Knowledge | 5.74* | primarily teacher in regular classroom with films or videos, guests and print resources; or primarily teacher in regular classroom with print resources better than no instruction |
| Attitudes | 2.71 | strategies are not significantly better than each other or no instruction |
| Intentions about Future Behaviour | | could not be analyzed, see page 23 for explanation |
| N = 1490 | | |
| *significant at or beyond the .05 level | | |

Combinations of Strategies — Grade 11

The effects of the **combinations** of strategies with additional supports on grade 11 students’ knowledge, attitudes, and intentions about future behaviour are reported in Table 16. Grade 11 students who received HIV/AIDS instruction, compared to those who did not, had greater knowledge if the HIV/AIDS in-

struction was delivered primarily by a teacher in regular classroom activities with following supports: audio-visual resources and print resources; or audio-visual resources and print resources and guests. None of the **combinations** had an effect on student attitudes or intentions about future behaviour.

Table 16
Effects on Grade 11 Students’ Knowledge, Attitudes, and Intentions about Future Behaviour of **Combinations** of Strategies of HIV/AIDS Instruction

| Components | F | Findings Related to Strategies |
|-----------------------------------|-------|---|
| Knowledge | 4.16* | primarily teacher in regular classroom with films or videos and print resources; or primarily teacher in regular classroom with films or videos and guests and print resources significantly better than no instruction |
| Attitudes | 1.91 | strategies are not significantly better than each other or no instruction |
| Intentions about Future Behaviour | 1.80 | strategies are not significantly better than each other or no instruction |
| N = 1040 | | |

*significant at or beyond the .05 level

Summary

A summary of the effects of the strategies used in HIV/AIDS instruction on grade 9 and grade 11 students’ knowledge and attitudes, including intentions about future behaviour, is presented in Table 17.

Overall, HIV/AIDS instruction provided primarily by a teacher in regular classroom activities was most consistently effective for grade 9 and 11 students, when their responses were compared to responses of those who had received instruction by the other strategies or who had not received instruction.

In addition, teachers’ use of supports such as, audio-visual resources (films or videos), guests, and/or print resources was effective.

The findings from this study strongly sup-

ported the teacher providing HIV/AIDS instruction in regular junior and senior high classrooms for students to increase their HIV/AIDS-related knowledge. Similarly, the teacher had positive effects on grade 9 students’ attitudes and on grade 11 students’ intentions about future behaviour. These gains were enhanced by the teacher using support resources.

Table 17

Summary of Findings Related to Strategies of HIV/AIDS Instruction on Grade 9 and 11 Students' Knowledge, Attitudes, and Intentions about Future Behaviour

| GRADE 9 STUDENTS (N = 1490) | | | |
|-------------------------------------|---|--|---|
| Strategies | Knowledge | Attitudes | Intentions about Future Behaviour |
| Overall | primarily teacher or primarily guest in classroom activities or primarily teacher in alternative to regular classroom activities are significantly better than no instruction | primarily teacher in regular classroom activities or in alternative to regular classroom activities are significantly better than no instruction | could not be analyzed, see page 23 for explanation |
| Combination | primarily teacher in regular classroom with films or videos, guests, and print resources; or primarily teacher in regular classroom with print resources are significantly better than no instruction | strategies are not significantly better than each other or no instruction | could not be analyzed, see page 23 for explanation |
| GRADE 11 STUDENTS (N = 1040) | | | |
| Strategies | Knowledge | Attitudes | Intentions about Future Behaviour |
| Overall | primarily teacher or guest in classroom activities are significantly better than no instruction | strategies are not significantly better than each other or no instruction | primarily teacher in regular classroom activities is significantly better than no instruction |
| Combination | primarily teacher in regular classroom with films or videos and print resources; or with films or videos, guests, and print resources are significantly better than no instruction | strategies are not significantly better than each other or no instruction | strategies are not significantly better than each other or no instruction |

Research Question 2

What are the effects of supporting HIV/AIDS instruction with specific print student learning resources on knowledge and attitudes, including intentions about future behaviour, of junior and senior high school students?

Introduction

In this study, students' responses were assessed related to either one or both of the following student print learning resources: *AIDS: What Young Adults Should Know*, and/or *AIDS: The Choices and Chances*. These resources were not considered to be representative of those that were available at the time of the study; they were the ones that had been provided for schools and were therefore being assessed.

The resources were used as supports for the strategies that were selected for providing HIV/AIDS instruction in four different ways, and the effects of each were measured. The uses of the resources were:

- 1) **seen** — having seen the resource
- 2) **read** — having read most or all of the resource, excluding “not at all” or “scanned a little”
- 3) **used** — having used the resource in class(es)
- 4) **kept** — having used the resource in class(es) and been given a copy of the resource to keep.

Although the students were provided with the above explanations of the uses, there could be a variety of interpretations about the categories “used” and “kept.” For instance, students may have had attached different meanings to “having used the resource.” Some students may have interpreted “used” in class to mean that the teacher handed the resource to them, while others may have interpreted the phrase to

mean that the teacher went through the resource page-by-page in class.

The students were asked to indicate if they had “seen” and “read” the resources without reference to the classroom. However, students were asked to indicate if they had “used” and “kept” the resources specifically in reference to the classroom. Although the four uses seem to be arranged hierarchically, this was not the intent for measuring effects of the resources in this study.

In order to determine the effects of the specific print resources as support to HIV/AIDS instruction or to determine if specific print resources made a difference to instruction, the student responses used in this analysis were from students who had received HIV/AIDS instruction. In other words, they were from the post-treatment group. The post-treatment students responses were divided into four groups for analysis. These groups consisted of students using: 1) *AIDS: What Young Adults Should Know*; 2) *AIDS: The Choices and Chances*; 3) both of the two resources, *AIDS: What Young Adults Should Know* and *AIDS: The Choices and Chances* and 4) no resources. Students were asked if they had **seen**, **read**, **used** or **kept** the resources.

The following pages present the findings for Research Question 2 in tables with a brief description. Following the detailed and specific tables for Research Question 2, a section entitled “Summary,” presents a discussion of the findings for this question.

Print Resources — Grade 9

The effects of the uses of print resources on grade 9 students' knowledge are reported in Table 18. Grade 9 students who said they had **seen** either *AIDS: What Young Adults*

Should Know or *AIDS: The Choices and Chances* or both had higher levels of HIV/AIDS-related knowledge in comparison to students who had received instruction but had not **seen** these resources.

Table 18

Effects on Grade 9 Students' Knowledge of Having Seen, Read, Used, and Kept Resources

| Use | F | Resources [†] with Significant Differences |
|---------|-------|--|
| Seen | 6.78* | 1, 2 or 3 are significantly better than no resources |
| Read | 2.29 | resources are not significantly better than each other or no resources |
| Used | 1.73 | resources are not significantly better than each other or no resources |
| Kept | 1.52 | resources are not significantly better than each other or no resources |
| N = 940 | | |

*significant at or beyond the .05 level

Table 19 reports effects of resources on grade 9 students' attitudes. Grade 9 students' HIV/AIDS-related attitudes were significantly more tolerant if they reported that they had **seen** or **read** *AIDS: What Young Adults Should*

Know or both *AIDS: What Young Adults Should Know* and *AIDS: The Choices and Chances*. **Using** or **keeping** the resources was not significantly related to attitudes.

Table 19

Effects on Grade 9 Students' Attitudes of Having Seen, Read, Used, and Kept Resources

| Use | F | Resources [†] with Significant Differences |
|---------|-------|--|
| Seen | 5.00* | 1 or 3 are significantly better than no resources |
| Read | 4.26* | 1 or 3 are significantly better than no resources |
| Used | .38 | resources are not significantly better than each other or no resources |
| Kept | .80 | resources are not significantly better than each other or no resources |
| N = 940 | | |

*significant at or beyond the .05 level

[†] Resources:

1) *AIDS: What Young Adults Should Know*

2) *AIDS: The Choices and Chances*

3) *AIDS: What Young Adults Should Know and AIDS: The Choices and Chances*

Print Resources — Grade 11

The effects of resources on grade 11 students' knowledge are reported in Table 20. Grade 11 students who said they had **seen**, **read** or **used** *AIDS: What Young Adults Should Know* and *AIDS: The Choices and Chances* had significantly greater HIV/AIDS-related knowledge in comparison to other students who received instruction but had not **seen**, **read**

or **used** both of these resources. **Reading** both resources was related to a higher level of knowledge than **reading** only one of the resources. **Using** both resources was related to a higher level of knowledge than using only *AIDS: What Young Adults Should Know*. Being given the resources to **keep** was not related to students' knowledge.

Table 20

Effects on Grade 11 Students' Knowledge of Having Seen, Read, Used, and Kept Resources

| Use | F | Resources [†] with Significant Differences |
|------|-------|--|
| Seen | 3.41* | 3 is significantly better than no resources |
| Read | 6.09* | 3 is significantly better than 1, 2 or no resources |
| Used | 5.47* | 3 is significantly better than 1 or no resources |
| Kept | 1.08 | resources are not significantly better than each other or no resources |

N = 790

*significant at or beyond the .05 level

The effects of the resources on grade 11 students' attitudes are reported in Table 21. Following HIV/AIDS instruction, grade 11 students who said they had **seen**, **read** or **used** *AIDS: What Young Adults Should Know* and *AIDS: The Choices and Chances* had significantly more tolerant HIV/AIDS-related attitudes in comparison to other students who received instruction but had not **seen**, **read** or

used either of these resources. **Seeing** either of the resources was related to more tolerant attitudes. **Reading** both resources was related to greater tolerance than **reading** only one of the resources. **Using** both resources was related to a more tolerant attitude than **using** only *AIDS: What Young Adults Should Know*. Giving students the resources to **keep** was not related to student attitude.

Table 21

Effects on Grade 11 Students' Attitudes of Having Seen, Read, Used, and Kept Resources

| Use | F | Resources [†] with Significant Differences |
|------|-------|--|
| Seen | 4.95* | 1, 2, or 3 are significantly better than no resources |
| Read | 3.88* | 3 is significantly better than 1 or no resources |
| Used | 4.45* | 3 is significantly better than 1 |
| Kept | 1.60 | resources are not significantly better than each other or no resources |

N = 790

*significant at or beyond the .05 level

The effects of the resources on grade 11 students' intentions about future behaviour are reported in Table 22. Grade 11 students who said they had read both resources, *AIDS: What Young Adults Should Know* and *AIDS: The Choices and Chances*, intended sexual behaviour that would more likely protect their health in the future, in comparison to treatment students who had **read** only one of the two resources. Grade 11 students who

said they had **used** both resources, *AIDS: What Young Adults Should Know* and *AIDS: The Choices and Chances*, were more likely to report intentions about healthy sexual behavior in the future when compared to treatment students who used *AIDS: What Young Adults Should Know*. **Seeing** and **keeping** resources was not related to intentions about future behaviour.

Table 22

Effects on Grade 11 Students' Intentions about Future Behaviour of Having Seen, Read, Used, and Kept Resources

| Use | F | Resources ¹ with Significant Differences |
|---------|-------|--|
| Seen | 2.68 | resources are not significantly better than each other or no resources |
| Read | 5.80* | 3 is significantly better than 1 or 2 |
| Used | 5.43* | 3 is significantly better than 1 |
| Kept | 1.41 | resources are not significantly better than each other or no resources |
| N = 790 | | |

*significant at or beyond the .05 level

Summary

Table 23 presents a summary of the effects of two specific print resources, alone or in combination, on grade 9 and grade 11 students' knowledge and attitudes, including intentions about future behaviour. The table provides information about the effects of four uses of these resources, as compared to the effects of not using these resources as support for HIV/AIDS instruction.

For grade 9 students, *AIDS: What Young Adults Should Know* as a single resource or in combination with *AIDS: The Choices and Chances* was equally effective. Students had higher levels of knowledge if they had **seen** either one of *AIDS: What Young Adults Should Know* or *AIDS: The Choices and Chances*, or both resources. They reported more tolerant attitudes (excluding intentions about future behaviour) if they had **seen** or **read** *AIDS: What Young Adults Should Know* or both of the resources.

For grade 11 students, *AIDS: What Young Adults Should Know* and *AIDS: The Choices and Chances* as single resources or in combination were effective in relation to attitudes if students had **seen** either one or both of them. As well, the combination of the two resources, *AIDS: What Young Adults Should Know* and *AIDS: The Choices and Chances* was effective in relation to students' knowledge if both resources were **seen**, **read** or **used** and students' attitudes if both resources were **read** or **used**. The resources were also effective in relation to intentions about future behaviour if they were **read** or **used** together.

The difference in effectiveness between grade 9 and grade 11 students of *AIDS: What Young Adults Should Know* could be explained by the booklet's content and format. The booklet may be more appropriate for and more appealing to grade 9 students than grade 11 students.

Based on the findings in this study, there is no support for giving individual students their own copies of any booklet to **keep**.

Table 23

Summary of Effects of Uses of Resource(s) on Grade 9 and Grade 11 Students' Knowledge, Attitudes, and Intentions about Future Behaviour

| GRADE 9 STUDENTS (N = 940) | | | |
|-----------------------------|---|--|---|
| | Knowledge | Attitudes | Intentions about Future Behaviour |
| Use: | | | |
| Seen | either resource or combination of 2 resources are significantly better than no resources | <i>AIDS: What Young Adults Should Know</i> or combination of 2 resources are significantly better than no resources | could not be analyzed, see page 23 for explanation |
| Read | resources are not significantly better than each other or no resources | <i>AIDS: What Young Adults Should Know</i> or combination of 2 resources are significantly better than no resources | could not be analyzed, see page 23 for explanation |
| Used | resources are not significantly better than each other or no resources | resources are not significantly better than each other or no resources | could not be analyzed, see page 23 for explanation |
| Kept | resources are not significantly better than each other or no resources | resources are not significantly better than each other or no resources | could not be analyzed, see page 23 for explanation |
| GRADE 11 STUDENTS (N = 790) | | | |
| | Knowledge | Attitudes | Intentions about Future Behaviour |
| Use: | | | |
| Seen | combination of 2 resources is significantly better than no resources | either resource or combination of 2 resources are significantly better than no resources | resources are not significantly better than each other or no resources |
| Read | combination of 2 resources is significantly better than either of the 2 resources or no resources | combination of 2 resources is significantly better than <i>AIDS: What Young Adults Should Know</i> or no resources | combination of 2 resources is significantly better than either of the 2 resources |
| Used | combination of 2 resources is significantly better than <i>AIDS: What Young Adults Should Know</i> or no resources | combination of 2 resources is significantly better than <i>AIDS: What Young Adults Should Know</i> | combination of 2 resources is significantly better than <i>AIDS: What Young Adults Should Know</i> |
| Kept | resources are not significantly better than each other or no resources | resources are not significantly better than each other or no resources | resources are not significantly better than each other or no resources |

DISCUSSION

The data for this study were collected in 1990. By far the largest majority of Alberta students said that they were getting and preferred to get their HIV/AIDS information from the school. They said that the school was doing a very good "job" in informing them about HIV/AIDS and its prevention. A smaller proportion said that other sources of HIV/AIDS information, including the media, health professionals and the family, were doing a good "job." Grade 9 and 11 students had higher levels of HIV/AIDS-related knowledge and more tolerant attitudes after receiving HIV/AIDS instruction. As well, grade 11 students were more likely to report intentions of healthy sexual behaviour in the future. The findings from this study indicated that Alberta teachers whose classes participated in the study were seen to be and were doing a good job of providing HIV/AIDS education.

Friends are frequently reported in other research studies as one of an adolescent's main sources of information. However, this was not the case for this sample of Alberta students. This was perhaps due to the impact of the junior high Health and Personal Life Skills program and the senior high Career and Life Management (CALM) course being offered in schools. Students have been receiving accurate information about HIV/AIDS since these courses have been implemented. Mandatory implementation of the courses occurred in junior high schools in 1986 and in senior high schools (CALM) in 1989. Possibly the information the students obtained from schools would give them a way to evaluate the information their friends were giving to them and thus make them more aware about false or partial information.

Treatment in the form of HIV/AIDS education was found to increase the knowledge

and the tolerant attitudes of grade 9 and grade 11 students when pre-test to post-test comparisons were completed. Students in grade 11 were more likely to report intentions of healthy sexual behaviour in the future after HIV/AIDS education; grade 9 students were not. This difference may be attributed to the differences in the developmental levels of these two groups. Other research (*Canada Youth & AIDS Study*, 1988; *Creative Development Research on Health Promotion and AIDS Prevention*, 1989) has reported that a larger percentage of grade 11 students is sexually active than grade 9 students. Thus, it is quite possible that the issues identified in the questionnaires had more relevance for grade 11 students than for grade 9 students.

The teacher in regular classroom activities was the educational strategy most consistently related to grade 9 and 11 students' HIV/AIDS-related knowledge and attitudes. It is probable that students are at ease with their teacher and find it comfortable to discuss issues related to HIV/AIDS during the presentation of information. These findings may also attest to the soundness of the curriculum that is being used by teachers in Alberta schools.

This is not to say that other sources of information and resources should not be used. When the combinations of instructional supports were analyzed in association with the main teaching strategies, it was found that students who were given instruction primarily by the teacher in the regular classroom using audio-visual resources (films or videos), guests, and/or print resources, had a significantly higher level of knowledge than those who had received no HIV/AIDS instruction. Thus, while the teacher should be considered as the most effective source for

providing information, the incorporation of other resources into the teaching strategy is quite possibly related to meeting the different needs and abilities of students, including different student learning styles.

In most instances, the combination of the two print resources, *AIDS: What Young Adults Should Know* and *AIDS: The Choices and Chances*, was related to higher levels of knowledge, more tolerant attitudes for grade 9 students, and to higher levels of knowledge and more tolerant attitudes including more likelihood of reporting intentions of healthy sexual behaviour in the future for grade 11 students. Students need to see information presented in as many ways as possible in order to accommodate individual learning styles and enhance their internalization of the information.

It is important to make print resources available for grade 9 and grade 11 students to see and read. In grade 11, it is also important for the teacher to use the resources as part of the teaching strategy. Interestingly, being given a copy of the resource to keep was not related to significant outcomes in any of the analysis. This finding has financial implications in that making class sets of resources available in schools was just as effective as providing individual copies of the resources for students to keep in regard to students' knowledge and attitudes. However, the effects of the resources outside the school (e.g., in the home) were not included in this study.

RECOMMENDATIONS

The following recommendations have been developed by the researchers based on the findings of the study.

Comprehensive Human Sexuality Education in Schools

HIV/AIDS and other STD will continue to be threats to young people's health in the foreseeable future. Students identified the school as their main source of information about human sexuality, HIV/AIDS, and other STD. This evaluation showed that HIV/AIDS instruction offered in the school does make a positive significant difference in students' knowledge and attitudes.

Recommendation 1.

Alberta schools continue to deliver the mandated comprehensive human sexuality program, including HIV/AIDS and other STD information.

HIV/AIDS Instruction by Classroom Teachers

HIV/AIDS instruction provided primarily by teachers during regular classroom instruction had the most consistently significant effects on students' knowledge and attitudes.

Recommendation 2.

HIV/AIDS instruction be provided by teachers during regular classroom instruction using a variety of supports including print resources, audio-visual resources, and/or guests.

Use of Print Resources with HIV/AIDS Instruction

The combination of HIV/AIDS instruction provided primarily by teachers during regu-

lar classroom activities with print resources had significant effects on students' knowledge and attitudes. In this study, either *AIDS: What Young Adults Should Know* or both *AIDS: What Young Adults Should Know* and *AIDS: The Choices and Chances* were effective for grade 9 students. For grade 11 students the use of both of the resources was most effective.

Recommendation 3.

Teachers support HIV/AIDS instruction with appropriate student print learning resources identified and approved by local school boards or Alberta Education.

Support for Human Sexuality, HIV/AIDS, and STD Education in Schools

The students' primary **actual** source for information about human sexuality, HIV/AIDS, and STD was the school. Their second **actual** source for information about human sexuality was the family, for information about HIV/AIDS it was TV/radio, and for STD it was magazines/papers/books.

The students' first **preferred** source for information about human sexuality, HIV/AIDS and other STD information was the school. The second **preferred** source for information about human sexuality was the family, and for HIV/AIDS and other STD information was health professionals such as doctors and nurses.

Recommendation 4.

Alberta Health, Alberta Education, schools, and agencies responsible for human sexuality education acknowledge and support the role of the family in human sexuality education.

Alberta Health, Alberta Education, and

agencies responsible for HIV/AIDS and other STD education acknowledge and support the partnerships of schools, health professionals, community HIV/AIDS organizations, and the media.

FUTURE REPORTS

This study produced much more information than could be included in one report. This report provides the key findings of the effects of HIV/AIDS education (including instructional strategies and print learning resources).

Detailed papers on the remaining information will be prepared. Priority will be given to reporting the information that was collected from teachers.

FUTURE RESEARCH

The results from this evaluation were important to many groups. Consequently, the study was directed by a team of representatives from the various stakeholder groups: schools, health units, private consultants and community HIV/AIDS organizations as well as two government departments, Alberta Health and Alberta Education. This partnership framework ensured that there was active representation of the expertise of those concerned with the study. This approach is encouraged for future research involving a variety of stakeholders.

Researchers studying HIV/AIDS education in the schools in Alberta in the future are encouraged to assess the effects of HIV/AIDS education, including instructional strategies and student print learning resources, on adolescents' choice of healthy sexual behaviour.

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APPENDICES

Appendix A

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Appendix A

List Of Participating Jurisdictions

The student sample included students from jurisdictions designated for the purpose of this study as metropolitan, urban, and rural.

Jurisdictions assigned to the metropolitan category included the following:

- Calgary School District #19,
- County of Strathcona #20,
- Edmonton Roman Catholic Separate School District #7,
- Edmonton School District #7,
- Leduc School District #297,
- St. Albert School District #3.

Jurisdictions assigned to the urban category included the following:

- Camrose School District #1315,
- County of Camrose #22,
- Grande Prairie School District #2357.

Jurisdictions assigned to the rural category included the following:

- Brooks School District #2092,
- County of Barrhead #11,
- County of Beaver #9,
- County of Flagstaff #29,
- County of Lacombe #14,
- County of Minburn #27,
- County of Newell #4,
- County of Paintearth #18,
- County of Parkland #31,
- County of Ponoka #3,
- County of Wetaskiwin #10,
- Crowsnest Pass School Division #63,
- High Prairie Roman Catholic Separate School District #56,
- High Prairie School Division #48,
- Mount Rundle School Division #64,
- Pincher Creek School Division #29,
- Rocky Mountain School Division #15,
- St. Paul Regional School District #1,
- Settler School District #1475,
- Sturgeon School Division #24,
- Wainwright School Division #32,
- Yellowhead School Division #12.

Appendix B

Instruments

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| Alberta AIDS Survey Description of Class Form | 67 |

Please complete one of these forms for each of your classes participating in the Alberta AIDS Survey.

Alberta AIDS Survey

Description of Class

If you have more than one class participating, complete a separate form for each class, then put the completed form on top of the student questionnaires for each respective class and bundle each class separately.

Please do not mix student questionnaires or forms from more than one class.

1. DATE THAT POST TEST WAS ADMINISTERED TO THIS CLASS:

2. CLASS SECTION NAME OR NUMBER _____

3. TEACHER'S NAME _____

4.

TREATMENT OR CONTROL?

*To be part of the **Treatment Group** all AIDS instruction must have been provided since date of the pre test (February 5).*

*To be part of the **Control Group** no AIDS instruction should have been provided so far in 1990.*

DID THIS CLASS PARTICIPATE IN THE ALBERTA AIDS EDUCATION SURVEY AS PART OF THE TREATMENT GROUP OR THE CONTROL GROUP? (Circle appropriate number.)

*Class was in
Treatment Group*

1

*Class was in
Control Group*

2

If you are unsure about the answer to question 4, please call Dr. Seaman, 420-0799 collect to discuss this form.

5.

AIDS INSTRUCTION WAS PROVIDED TO THIS CLASS AS PART OF: (Circle ONE)

- a. Health and Personal Life Skills (Junior High School)
- b. Career and Life Management (CALM)
- c. Personal Living Skills (Home Economics, Senior High)
- d. Science
- e. Social Studies
- f. Religious Studies
- g. Other (specify _____)

6.

WHICH OF THE FOLLOWING TOPICS DID YOU INCLUDE IN THE CLASSES ON AIDS FOR THIS CLASS? (Circle **ALL** that apply):

- a. History of AIDS
- b. Different rates of transmission for differing sexual practices (eg. oral, anal, and genital sex)
- c. Sharing of needles during IV drug use as a means of transmission
- d. Receiving blood as a possible source of AIDS
- e. Abstinence from sexual intercourse as a means of preventing AIDS transmission
- f. Skills in negotiating personal relationships, such as assertion skills, expectations of sexual intimacy
- g. Importance of selectivity when choosing sexual partners to reduce risk of AIDS transmission
- h. Importance of asking a potential sexual partner about his/her sexual history
- i. Use of condoms to prevent AIDS transmission
- j. Attitudes toward those infected with the AIDS virus.
- k. Social, political and economic implications of AIDS.

7.

HOW MANY CLASS PERIODS ABOUT AIDS WERE INCLUDED FOR THIS CLASS?

_____ PERIODS

8.

HOW LONG WAS EACH CLASS, IN MINUTES?

_____ MINUTES

9.

- a. DID THE STUDENTS USE *AIDS - WHAT YOUNG ADULTS SHOULD KNOW* BY YARBER IN THE CLASSROOM ? (This booklet is illustrated on page 4 of the Students' Questionnaire.)

| | |
|------------|-----------|
| <i>Yes</i> | <i>No</i> |
| 1 | 2 |

- b. WERE THE STUDENTS GIVEN A COPY OF *AIDS - WHAT YOUNG ADULTS SHOULD KNOW* BY YARBER TO TAKE HOME AND KEEP?

| | |
|------------|-----------|
| <i>Yes</i> | <i>No</i> |
| 1 | 2 |

- c. HOW WOULD YOU RATE *AIDS - WHAT YOUNG ADULTS SHOULD KNOW* AS A STUDENT RESOURCE?

| | | | |
|------------------------------|----------------------------|--------------------------|------------------------|
| <i>Not at all useful</i> | <i>Not very useful</i> | <i>Fairly useful</i> | <i>Very useful</i> |
| 1 | 2 | 3 | 4 |

10.

- a. DID YOU USE THE TEACHER'S GUIDE BY YARBER (*AIDS - WHAT YOUNG ADULTS SHOULD KNOW. TEACHER GUIDE.*)

| | |
|------------|-----------|
| <i>Yes</i> | <i>No</i> |
| 1 | 2 |

- b. HOW WOULD YOU RATE THE TEACHER'S GUIDE BY YARBER?

| | | | |
|------------------------------|----------------------------|--------------------------|------------------------|
| <i>Not at all useful</i> | <i>Not very useful</i> | <i>Fairly useful</i> | <i>Very useful</i> |
| 1 | 2 | 3 | 4 |

- 11.** a. DID THE STUDENTS USE *AIDS - THE CHOICES AND THE CHANCES* IN THE CLASSROOM? (This booklet is illustrated on page 6 of the Students' Questionnaire.)

Yes

1

No

2

- b. WERE THE STUDENTS GIVEN A COPY OF *AIDS - THE CHOICES AND THE CHANCES* TO TAKE HOME AND KEEP ?

Yes

1

No

2

- c. HOW WOULD YOU RATE *AIDS - THE CHOICES AND THE CHANCES* AS A STUDENT RESOURCE?

*Not at all
useful*

1

*Not very
useful*

2

*Fairly
useful*

3

*Very
useful*

4

- 12.** a. DID THE STUDENTS USE THE EDMONTON CATHOLIC SCHOOLS BOOKLET *YOU ALMOST HAVE TO CHOOSE TO GET AIDS* IN THE CLASSROOM ? (THIS BOOKLET IS ILLUSTRATED ON PAGE 8 OF THE STUDENTS' QUESTIONNAIRE.)

Yes

1

No

2

- b. WERE THE STUDENTS GIVEN A COPY OF *YOU ALMOST HAVE TO CHOOSE TO GET AIDS* TO TAKE HOME AND KEEP ?

Yes

1

No

2

- c. HOW WOULD YOU RATE *YOU ALMOST HAVE TO CHOOSE TO GET AIDS* AS A STUDENT RESOURCE?

*Not at all
useful*

1

*Not very
useful*

2

*Fairly
useful*

3

*Very
useful*

4

- 13.** a. DID YOU USE *TEACHING AIDS: A RESOURCE GUIDE ON ACQUIRED IMMUNE DEFICIENCY SYNDROME* BY QUACKENBUSH AND SARGENT?

Yes

No

1

2

- b. HOW WOULD YOU RATE THE RESOURCE BY QUACKENBUSH AND SARGENT?

*Not at all
useful*

*Not very
useful*

*Fairly
useful*

*Very
useful*

1

2

3

4

- 14.** WERE OTHER STUDENT PRINT RESOURCES USED?

Yes

No

1

2

If yes, please specify _____

- 15.** WERE OTHER TEACHER REFERENCES USED?

Yes

No

1

2

If yes, please specify _____

AIDS EDUCATION SURVEY

A JOINT PROJECT OF ALBERTA HEALTH AND ALBERTA EDUCATION

March, 1990

Dear Teacher:

A critical component of the Alberta AIDS Education survey is background information regarding factors which may influence the effectiveness of AIDS instruction. We are therefore asking the teachers who are responsible for providing AIDS instruction to students in the survey to complete this questionnaire.

The survey is being conducted under the strictest conditions of confidentiality. You will note that the first question on your questionnaire asks for your name. This is done solely to match your responses with your class in order to anonymously examine background factors which may affect student learning. This study will not in any way evaluate the competence or effectiveness of individual teachers.

No one in your school jurisdiction or in any department of the Government of Alberta will have access to any information which can be attributed to any individual. Names of participating teachers will not be released.

The questionnaire contains several types of items. Some request biographic information; others pertain to attitudes, values or knowledge related to AIDS. Consequently, there may be no single right answer to a particular question. In each case, give the answer that **you** feel is best.

If there are any questions which you do not wish to answer, cannot answer, or which do not apply to you, leave the item blank.

Thank you for your participation.

Yours truly,



Lorne D. Seaman, Ph.D., CMC
Chartered Psychologist
President,
Lorne Seaman & Associates

TEACHER QUESTIONNAIRE

PART 1.

1. WHAT IS YOUR NAME?

| | | | |
|--|--|--|--|
| | | | |
|--|--|--|--|

2. DID YOU, OR DO YOU EXPECT TO PROVIDE OR ARRANGE AIDS INSTRUCTION TO A CLASS WHICH IS PARTICIPATING IN THE ALBERTA AIDS EDUCATION SURVEY?

1. Yes (Please continue.)

2. No (Please don't continue with this questionnaire.
Phone Dr. Seaman collect for instructions: 420-0799.)

3. ARE YOU MALE OR FEMALE? (Circle appropriate number)

Male

Female

1

2

4. IN WHAT SCHOOL DO YOU TEACH?

| | | | | |
|--|--|--|--|--|
| | | | | |
|--|--|--|--|--|

5. IN WHAT CITY, TOWN OR VILLAGE IS THIS SCHOOL LOCATED?

| | | | | |
|--|--|--|--|--|
| | | | | |
|--|--|--|--|--|

6. WHAT ARE YOUR **MAIN** TEACHING RESPONSIBILITIES? (Circle up to three)

1. Career and Life Management **or** Health and Personal Life Skills

2. Biology or other sciences

3. Social Studies

4. Religious Studies

5. English Language Arts

6. A language other than English

7. Mathematics

8. Physical Education

9. Home Economics (Personal Living Skills)

10. Student Counselling/Guidance

11. Other (Specify _____)

7.

PLEASE INDICATE TRAINING YOU HAVE HAD **SPECIFIC TO AIDS**. (Circle all letters that apply)

- a) University level course
- b) Professional journal articles
- c) Sessions offered by Alberta Education
- d) Sessions offered by STD Control Education Unit of Alberta Health
- e) Sessions offered by your Health Unit
- f) Sessions offered by your school jurisdiction
- g) Sessions offered by publisher
- h) Other (Specify _____)

8.

HOW WOULD YOU RATE THE ADEQUACY OF YOUR TRAINING SPECIFICALLY **WITH REGARD TO AIDS**? (Circle appropriate number)

| | | | |
|--------------------------------|------------------------------|----------------------------|--------------------------|
| <i>Not at all adequate</i> | <i>Not very adequate</i> | <i>Fairly adequate</i> | <i>Very adequate</i> |
| 1 | 2 | 3 | 4 |

9.

HOW WELL INFORMED DO YOU FEEL YOU ARE ABOUT ACTIONS THAT CAN BE TAKEN TO AVOID BECOMING INFECTED WITH THE AIDS VIRUS? (Circle appropriate number)

| | | | |
|--------------------------------|-----------------------------------|---------------------------------|-------------------------------|
| <i>Not at all informed</i> | <i>Not very well informed</i> | <i>Fairly well informed</i> | <i>Very well informed</i> |
| 1 | 2 | 3 | 4 |

10.

HOW GOOD A JOB DO YOU THINK EACH OF THE FOLLOWING IS DOING IN INFORMING YOUNG PEOPLE ABOUT AIDS AND ITS PREVENTION? (Circle appropriate number for each item)

| | <i>Very Poor</i> | <i>Fairly Poor</i> | <i>Fairly Good</i> | <i>Very Good</i> |
|--------------------------------------|----------------------|------------------------|------------------------|----------------------|
| Family | 1 | 2 | 3 | 4 |
| Friends | 1 | 2 | 3 | 4 |
| Church, Synagogue, etc. | 1 | 2 | 3 | 4 |
| School (including resource material) | 1 | 2 | 3 | 4 |
| Doctor/Nurse/Clinic | 1 | 2 | 3 | 4 |
| Television/Radio | 1 | 2 | 3 | 4 |
| Magazines/Newspapers/Books | 1 | 2 | 3 | 4 |

11. FOR THE FOLLOWING STATEMENTS, CIRCLE THE NUMBER WHICH INDICATES YOUR ATTITUDE.
(Circle appropriate number for each item)

| | <i>Strongly Disagree</i> | <i>Disagree</i> | <i>Agree</i> | <i>Strongly Agree</i> |
|---|------------------------------|-----------------|--------------|---------------------------|
| abstinence and safer sex practices should both be components of AIDS instruction | 1 | 2 | 3 | 4 |
| abstinence is the only method of AIDS prevention which should be taught | 1 | 2 | 3 | 4 |
| teaching AIDS prevention requires that students receive instruction on interpersonal skills | 1 | 2 | 3 | 4 |
| teaching about safer sexual practices encourages sexual activity | 1 | 2 | 3 | 4 |
| condoms should be readily accessible to young people | 1 | 2 | 3 | 4 |
| a person who carries a condom is probably promiscuous | 1 | 2 | 3 | 4 |

***The remaining items on this questionnaire
parallel questions asked on the student survey.***

12. FOR EACH OF THE FOLLOWING STATEMENTS, CIRCLE 1 OR 2, TO INDICATE WHETHER IT IS TRUE OR FALSE. (1 = True, 2 = False)

| | <i>True</i> | <i>False</i> |
|--|-------------|--------------|
| AIDS interferes with the body's ability to fight off other diseases. | 1 | 2 |
| A person can carry the AIDS virus, and be able to infect others, for several years without having signs of illness. | 1 | 2 |
| A person can be infected with the AIDS virus for up to six months before it can be detected, even by a blood test. | 1 | 2 |
| AIDS can be cured if treated early. | 1 | 2 |
| Homosexual females and homosexual males are equally at risk of catching the AIDS virus. | 1 | 2 |
| Condoms made from natural material are more effective than latex condoms in preventing transmission of the AIDS virus. | 1 | 2 |
| The AIDS scare isn't real, it's mostly a media hype. | 1 | 2 |

13. THE TERM "AIDS" COMES FROM WHICH OF THE FOLLOWING? (Circle appropriate number)

1. Advanced Infectious Disease Symptoms
2. Amnio Inflammatory Diotic Secretion
3. Acquired Immune Deficiency Syndrome

14. CAN A PERSON BECOME INFECTED WITH THE AIDS VIRUS IN THE FOLLOWING WAYS?
(Circle 1 or 2 for each item)

| | <i>Yes, AIDS can be caught this way</i> | <i>No, AIDS cannot be caught this way</i> |
|---|---|---|
| from food | 1 | 2 |
| from mosquitoes | 1 | 2 |
| from receiving blood through a transfusion | 1 | 2 |
| by giving (donating) blood | 1 | 2 |
| from public toilets | 1 | 2 |
| from a swimming pool | 1 | 2 |
| by hugging a person who has AIDS | 1 | 2 |
| by working with someone who is infected with the AIDS virus | 1 | 2 |

15. CAN THE AIDS VIRUS BE SPREAD IN THE FOLLOWING WAYS?
(Circle 1 or 2 for each item)

| | <i>Yes, AIDS can be spread this way</i> | <i>No, AIDS cannot be spread this way</i> |
|---|---|---|
| from a woman to a man during sexual intercourse | 1 | 2 |
| from a man to a woman during sexual intercourse | 1 | 2 |
| from a mother to her baby during pregnancy | 1 | 2 |

16.

HOW EFFECTIVE ARE THE FOLLOWING WAYS TO AVOID CATCHING THE AIDS VIRUS?
(Circle appropriate number for each item)

| | <i>Not at all Effective</i> | <i>Not Very Effective</i> | <i>Fairly Effective</i> | <i>Very Effective</i> |
|---|---------------------------------|-------------------------------|-----------------------------|---------------------------|
| abstain from sexual intercourse | 1 | 2 | 3 | 4 |
| have sexual relations with only one person | 1 | 2 | 3 | 4 |
| use a condom during sexual intercourse | 1 | 2 | 3 | 4 |
| use a spermicide with a condom during vaginal intercourse | 1 | 2 | 3 | 4 |
| use vaseline with a condom during sexual intercourse | 1 | 2 | 3 | 4 |
| for a woman, use the birth control pill | 1 | 2 | 3 | 4 |
| abstain from using drugs intravenously | 1 | 2 | 3 | 4 |
| abstain from sharing needles | 1 | 2 | 3 | 4 |
| clean needles with bleach if they are shared | 1 | 2 | 3 | 4 |
| avoid crowded public places, like night clubs | 1 | 2 | 3 | 4 |
| avoid socializing with gays | 1 | 2 | 3 | 4 |

17. FOR EACH OF THE FOLLOWING, INDICATE YOUR OPINION ON WHETHER THE FOLLOWING THINGS SHOULD BE DONE IN CANADA TO HELP PREVENT THE SPREAD OF THE AIDS VIRUS. (Circle appropriate number for each item)

| | <i>Strongly Disagree</i> | <i>Disagree</i> | <i>Agree</i> | <i>Strongly Agree</i> |
|--|------------------------------|-----------------|--------------|---------------------------|
| provide more AIDS education | 1 | 2 | 3 | 4 |
| allow employers to test for AIDS before hiring employees | 1 | 2 | 3 | 4 |
| ensure that AIDS test results are kept confidential (released by a doctor only to the patient) | 1 | 2 | 3 | 4 |
| publicize the names of people who are infected with the AIDS virus | 1 | 2 | 3 | 4 |
| quarantine (isolate) people who are infected with the AIDS virus | 1 | 2 | 3 | 4 |
| prohibit gays from working in schools | 1 | 2 | 3 | 4 |
| prohibit people who are infected with the AIDS virus from working in schools | 1 | 2 | 3 | 4 |
| prohibit students infected with the AIDS virus from attending school | 1 | 2 | 3 | 4 |
| prohibit people who are infected with the AIDS virus from working in restaurants | 1 | 2 | 3 | 4 |
| make condoms more available to teenagers | 1 | 2 | 3 | 4 |
| provide demonstrations on how to use a condom | 1 | 2 | 3 | 4 |
| have people with AIDS talk to students about their illness | 1 | 2 | 3 | 4 |

18.

FOR EACH OF THE FOLLOWING DESCRIPTIONS, INDICATE HOW SAFE OR RISKY YOU FEEL THE SITUATION IS FOR BECOMING INFECTED WITH THE AIDS VIRUS. (Circle appropriate number for each item)

| | <i>Very Risky</i> | <i>Somewhat Risky</i> | <i>Somewhat Safe</i> | <i>Very Safe</i> |
|---|-----------------------|---------------------------|--------------------------|----------------------|
| sexual intercourse with a recent acquaintance | 1 | 2 | 3 | 4 |
| having had two or three different sexual partners over the past five years | 1 | 2 | 3 | 4 |
| two people who have had sexual intercourse only with each other over the past five years | 1 | 2 | 3 | 4 |
| abstaining from sexual intercourse over the past five years | 1 | 2 | 3 | 4 |
| passionate or deep kissing with no sexual intercourse | 1 | 2 | 3 | 4 |
| sexual intercourse with a man who has had sex with another man | 1 | 2 | 3 | 4 |
| sexual massage or petting with no sexual intercourse | 1 | 2 | 3 | 4 |
| anal intercourse without a condom | 1 | 2 | 3 | 4 |
| oral-genital sex without a condom | 1 | 2 | 3 | 4 |
| sexual intercourse with an intravenous drug user | 1 | 2 | 3 | 4 |

19. WHAT IS THE **FULL** NAME OF THE VIRUS THAT CAUSES AIDS? (Please print)

20. WHAT DO YOU THINK IS THE **SINGLE** MOST IMPORTANT THING WHICH MUST BE DONE TO HELP YOUNG PEOPLE AVOID BECOMING INFECTED WITH AIDS? (Please print - Use point form)

21. WE WOULD APPRECIATE ANY COMMENTS YOU CAN OFFER REGARDING ANY ASPECT OF THE PROVINCIAL AIDS PROGRAM.

*Thank you for your participation.
The results of this survey will help in making plans to fight AIDS.*

AIDS EDUCATION SURVEY

A JOINT PROJECT OF ALBERTA HEALTH AND ALBERTA EDUCATION

March, 1990

Dear Student:

We are now asking you to complete the AIDS questionnaire a second time to see if students' knowledge and attitudes have changed since it was first answered. Again, it is not a test. It is a confidential survey. We are not asking for your name or any other personal information. We are not evaluating you or your teacher. We want to find out what students, in general, know and think about AIDS and its prevention.

The questionnaire contains several types of items. Some request information such as age or grade. Other questions ask about attitudes, values or knowledge related to AIDS. Consequently, ***there may be no single right answer to a particular question.*** In each case, give the answer that you believe is best.

If there are any questions which you do not wish to answer, cannot answer, or which do not apply to you, leave the item blank.

After you have completed the questionnaire, seal it in the accompanying envelope. It will be forwarded with all student questionnaires directly to Lorne Seaman & Associates, the consulting firm conducting this project for the provincial departments of Health and Education. Your teacher will not see your answers.

Thank you for your participation.

Yours truly,

Lorne D. Seaman, Ph.D., CMC
Chartered Psychologist
President,
Lorne Seaman & Associates

AIDS EDUCATION SURVEY

DATE _____

1. ARE YOU MALE OR FEMALE? (Circle appropriate number)

Male

Female

1

2

2. HOW OLD ARE YOU? (use age at time of your last birthday) _____

3a WHAT GRADE ARE YOU IN? (Circle appropriate number)

8

9

10

11

12

3b WHAT IS THE NAME OF THE CLASS SECTION IN WHICH AIDS INSTRUCTION IS PROVIDED TO YOU?

4. WHAT SCHOOL DO YOU ATTEND?

| | | | |
|--|--|--|--|
| | | | |
|--|--|--|--|

5. IN WHAT CITY, TOWN OR VILLAGE IS THIS SCHOOL LOCATED?

| | | | |
|--|--|--|--|
| | | | |
|--|--|--|--|

6. WHAT IS THE NAME OF THE REGULAR TEACHER OF THE CLASS IN WHICH YOU ARE COMPLETING THIS SURVEY?

| | | | |
|--|--|--|--|
| | | | |
|--|--|--|--|

7. HOW WELL INFORMED DO YOU FEEL YOU ARE ABOUT ACTIONS THAT YOU CAN TAKE TO AVOID BECOMING INFECTED WITH THE AIDS VIRUS? (Circle appropriate number)

*Not at all
informed*

*Not too well
informed*

*Fairly well
informed*

*Very well
informed*

1

2

3

4

USE THE FOLLOWING CODE TO ANSWER QUESTIONS 8 AND 9.

- | | |
|--|-------------------------------|
| 1. Family | 5. Doctor/Nurse/Clinic |
| 2. Friend | 6. Television/Radio |
| 3. Church, Synagogue, etc. | 7. Magazines/Newspapers/Books |
| 4. School (including resource material, such as books, films etc.) | 8. Other |

8. WHAT HAVE BEEN YOUR **TWO MAIN** SOURCES OF INFORMATION ABOUT THE FOLLOWING? (Use code from above)

| | <i>First source</i> | <i>Second source</i> |
|---|---------------------|----------------------|
| Human Sexuality | _____ | _____ |
| AIDS | _____ | _____ |
| Other sexually transmitted diseases (STDs) such as syphilis, gonorrhea, chlamydia, and herpes | _____ | _____ |

9. FROM WHICH **SINGLE** SOURCE WOULD YOU **PREFER** TO LEARN ABOUT THE FOLLOWING? (Use code from above)

| | |
|---|-------|
| Human Sexuality | _____ |
| AIDS | _____ |
| Other sexually transmitted diseases (STDs) such as syphilis, gonorrhea, chlamydia, and herpes | _____ |

10. HOW GOOD A JOB DO YOU THINK EACH OF THE FOLLOWING IS DOING IN INFORMING YOU ABOUT AIDS AND ITS PREVENTION? (Circle the appropriate number for each item)

| | <i>Very Poor</i> | <i>Fairly Poor</i> | <i>Fairly Good</i> | <i>Very Good</i> |
|--------------------------------------|------------------|--------------------|--------------------|------------------|
| Family | 1 | 2 | 3 | 4 |
| Friends | 1 | 2 | 3 | 4 |
| Church, Synagogue, etc. | 1 | 2 | 3 | 4 |
| School (including resource material) | 1 | 2 | 3 | 4 |
| Doctor/Nurse/Clinic | 1 | 2 | 3 | 4 |
| Television/Radio | 1 | 2 | 3 | 4 |
| Magazines/Newspapers/Books | 1 | 2 | 3 | 4 |

AIDS

WHAT YOUNG ADULTS SHOULD KNOW

ALBERTA EDITION

11. HAVE YOU SEEN THE AIDS BOOKLET PICTURED ON PAGE 4? (If yes, go to 12, otherwise go to 16)

| <i>Yes</i> | <i>No</i> | <i>Don't Know/Can't Say</i> |
|------------|-----------|-----------------------------|
| 1 | 2 | 3 |

12. HOW MUCH OF IT HAVE YOU READ?

| <i>Not at all</i> | <i>Scanned it a little</i> | <i>Read most of it</i> | <i>Read it all</i> |
|-------------------|----------------------------|------------------------|--------------------|
| 1 | 2 | 3 | 4 |

13. WAS THIS BOOKLET USED AS A RESOURCE IN YOUR AIDS CLASS(ES)?

| <i>Yes</i> | <i>No</i> | <i>Don't Know/Can't Say</i> |
|------------|-----------|-----------------------------|
| 1 | 2 | 3 |

14. IF THE BOOKLET WAS USED IN YOUR SCHOOL CLASS, WERE YOU GIVEN A COPY OF YOUR OWN TO KEEP?

| <i>Yes</i> | <i>No</i> | <i>Don't Know/Can't Say</i> |
|------------|-----------|-----------------------------|
| 1 | 2 | 3 |

15. HOW WOULD YOU RATE THIS BOOKLET ON THE FOLLOWING QUESTIONS?
(Circle appropriate rating for each item)

| | <i>Very Low Rating</i> | <i>Fairly Low Rating</i> | <i>Fairly High Rating</i> | <i>Very High Rating</i> |
|---|------------------------|--------------------------|---------------------------|-------------------------|
| How interesting is this booklet? | 1 | 2 | 3 | 4 |
| How much did you learn from it? | 1 | 2 | 3 | 4 |
| How easy is it to understand? | 1 | 2 | 3 | 4 |
| How informative is this booklet? | 1 | 2 | 3 | 4 |
| Overall, how good do you think this booklet is? | 1 | 2 | 3 | 4 |

AIDS

The choices
and chances



Alberta
HEALTH

AIDS Info: 1-800-772-AIDS

16. HAVE YOU SEEN THE AIDS BOOKLET PICTURED ON PAGE 6? (If yes, go to 17, otherwise go to 21)

| | | |
|------------|-----------|-----------------------------|
| <i>Yes</i> | <i>No</i> | <i>Don't Know/Can't Say</i> |
| 1 | 2 | 3 |

17. HOW MUCH OF IT HAVE YOU READ?

| | | | |
|-------------------|----------------------------|------------------------|--------------------|
| <i>Not at all</i> | <i>Scanned it a little</i> | <i>Read most of it</i> | <i>Read it all</i> |
| 1 | 2 | 3 | 4 |

18. WAS THIS BOOKLET USED AS A RESOURCE IN YOUR AIDS CLASS(ES)?

| | | |
|------------|-----------|-----------------------------|
| <i>Yes</i> | <i>No</i> | <i>Don't Know/Can't Say</i> |
| 1 | 2 | 3 |

19. IF THE BOOKLET WAS USED IN YOUR SCHOOL CLASS, WERE YOU GIVEN A COPY OF YOUR OWN TO KEEP?

| | | |
|------------|-----------|-----------------------------|
| <i>Yes</i> | <i>No</i> | <i>Don't Know/Can't Say</i> |
| 1 | 2 | 3 |

20. HOW WOULD YOU RATE THIS BOOKLET ON THE FOLLOWING QUESTIONS?
(Circle appropriate rating for each item)

| | <i>Very Low Rating</i> | <i>Fairly Low Rating</i> | <i>Fairly High Rating</i> | <i>Very High Rating</i> |
|---|------------------------|--------------------------|---------------------------|-------------------------|
| How interesting is this booklet? | 1 | 2 | 3 | 4 |
| How much did you learn from it? | 1 | 2 | 3 | 4 |
| How easy is it to understand? | 1 | 2 | 3 | 4 |
| How informative is this booklet? | 1 | 2 | 3 | 4 |
| Overall, how good do you think this booklet is? | 1 | 2 | 3 | 4 |

almost
You have to
choose
to get AIDS



Brampton
Catholic
Schools

21. HAVE YOU SEEN THE AIDS BOOKLET PICTURED ON PAGE 8? (If yes, go to 22, otherwise go to 26)

| <i>Yes</i> | <i>No</i> | <i>Don't Know/Can't Say</i> |
|------------|-----------|-----------------------------|
| 1 | 2 | 3 |

22. HOW MUCH OF IT HAVE YOU READ?

| <i>Not at all</i> | <i>Scanned it a little</i> | <i>Read most of it</i> | <i>Read it all</i> |
|-------------------|----------------------------|------------------------|--------------------|
| 1 | 2 | 3 | 4 |

23. WAS THIS BOOKLET USED AS A RESOURCE IN YOUR AIDS CLASS(ES)?

| <i>Yes</i> | <i>No</i> | <i>Don't Know/Can't Say</i> |
|------------|-----------|-----------------------------|
| 1 | 2 | 3 |

24. IF THE BOOKLET WAS USED IN YOUR SCHOOL CLASS, WERE YOU GIVEN A COPY OF YOUR OWN TO KEEP?

| <i>Yes</i> | <i>No</i> | <i>Don't Know/Can't Say</i> |
|------------|-----------|-----------------------------|
| 1 | 2 | 3 |

25. HOW WOULD YOU RATE THIS BOOKLET ON THE FOLLOWING QUESTIONS?
(Circle appropriate rating for each item)

| | <i>Very Low Rating</i> | <i>Fairly Low Rating</i> | <i>Fairly High Rating</i> | <i>Very High Rating</i> |
|---|------------------------|--------------------------|---------------------------|-------------------------|
| How interesting is this booklet? | 1 | 2 | 3 | 4 |
| How much did you learn from it? | 1 | 2 | 3 | 4 |
| How easy is it to understand? | 1 | 2 | 3 | 4 |
| How informative is this booklet? | 1 | 2 | 3 | 4 |
| Overall, how good do you think this booklet is? | 1 | 2 | 3 | 4 |

26.

QUESTIONS ON THIS PAGE ARE RELATED TO CLASSES YOU HAVE TAKEN ON THE SUBJECT OF AIDS. IF YOU HAVE NOT RECEIVED AIDS INSTRUCTION IN 1990 PLEASE SKIP TO QUESTION 27. (Please circle the number which describes the class(es) you received.)

| | Yes | No |
|--|-----|----|
| Was the AIDS instruction provided mainly by one of your teachers? | 1 | 2 |
| At least part of your AIDS instruction was presented by a public health nurse or some other health professional. | 1 | 2 |
| At least part of your AIDS instruction was presented by a speaker from a community AIDS organization. | 1 | 2 |
| Your class(es) about AIDS included a visit by a person who has the virus that causes AIDS. | 1 | 2 |
| Your classes were taught with boys and girls in the class. | 1 | 2 |
| Were any films, videos etc. used in your AIDS classes? | 1 | 2 |

| | <i>Not at All</i> | <i>Very Little</i> | <i>Somewhat</i> | <i>Very Informative</i> |
|---|-------------------|--------------------|-----------------|-------------------------|
| If films, videos etc. were used, how informative were they? | 1 | 2 | 3 | 4 |

| | <i>Yes, AIDS class was as usual</i> | <i>No, AIDS class was different</i> |
|--|-------------------------------------|-------------------------------------|
| Were AIDS classes taught as part of your regular classroom activities or were the classes set up differently? (e.g., everybody called to the gym for a film or lecture.) | 1 | 2 |

If AIDS instruction was different, specify in what way _____

27. SINCE JANUARY 1, 1990, HOW MANY CLASSES HAVE YOU ATTENDED IN SCHOOL ABOUT AIDS ?
of periods _____

28. **SINCE SEPTEMBER 1987**, HOW MANY CLASS PERIODS HAVE YOU ATTENDED IN SCHOOL ABOUT AIDS?
of periods _____

29. FOR EACH OF THE FOLLOWING STATEMENTS, CIRCLE 1 OR 2, TO INDICATE TRUE OR FALSE. (1 = True, 2 = False)

| | <i>True</i> | <i>False</i> |
|--|-------------|--------------|
| AIDS interferes with the body's ability to fight off other diseases. | 1 | 2 |
| A person can carry the AIDS virus, and be able to infect others, for several years without having signs of illness. | 1 | 2 |
| A person can be infected with the AIDS virus for up to six months before it can be detected, even by a blood test. | 1 | 2 |
| AIDS can be cured if treated early. | 1 | 2 |
| Homosexual females and homosexual males are equally at risk of catching the AIDS virus. | 1 | 2 |
| Condoms made from natural material are more effective than latex condoms in preventing transmission of the AIDS virus. | 1 | 2 |
| The AIDS scare isn't real, it's mostly a media hype. | 1 | 2 |

30. IF YOU THOUGHT YOU MIGHT HAVE CONTRACTED THE AIDS VIRUS OR ANOTHER SEXUALLY TRANSMITTED DISEASE (STD), WHERE WOULD YOU GO **FIRST** FOR HELP? (Circle **one** number.)

- | | |
|--|---------------------|
| 1. Doctor | 6. Parent(s) |
| 2. An STD Clinic | 7. Friend |
| 3. Health unit or public health nurse | 8. Hospital |
| 4. Minister, priest, rabbi, etc. | 9. Don't Know |
| 5. Teacher, school counsellor, or school nurse | 10. Other (specify) |

31. FOR THE FOLLOWING STATEMENTS, CIRCLE 1 OR 2, INDICATING WHETHER YOU AGREE OR DISAGREE. (1 = Agree, 2 = Disagree)

| | <i>Agree</i> | <i>Disagree</i> |
|---|--------------|-----------------|
| If you carry a condom, people will think you are promiscuous (have many sexual partners). | 1 | 2 |
| I would be afraid to carry a condom in case it was discovered. | 1 | 2 |
| Before having sexual intercourse, I would talk with my partner about using a condom for our protection. | 1 | 2 |
| Before having sexual intercourse, I would ask my partner about his/her sexual experiences. | 1 | 2 |
| I would use a condom during sexual intercourse. | 1 | 2 |

32. IF YOU WOULD NOT USE A CONDOM, WHY NOT? _____

 _____ ☐ ☐

33. THE TERM "AIDS" COMES FROM WHICH OF THE FOLLOWING? (Circle appropriate number)

1. Advanced Infectious Disease Symptoms
2. Amnio Inflammatory Diotic Secretion
3. Acquired Immune Deficiency Syndrome

34. CAN A PERSON BECOME INFECTED WITH THE AIDS VIRUS IN THE FOLLOWING WAYS? (Circle 1 or 2 for each item)

| | <i>Yes, AIDS can be caught this way</i> | <i>No, AIDS cannot be caught this way</i> |
|---|---|---|
| from food | 1 | 2 |
| from mosquitoes | 1 | 2 |
| from receiving blood through a transfusion | 1 | 2 |
| by giving (donating) blood | 1 | 2 |
| from public toilets | 1 | 2 |
| from a swimming pool | 1 | 2 |
| by hugging a person who has AIDS | 1 | 2 |
| by working with someone who is infected with the AIDS virus | 1 | 2 |

35.

CAN THE AIDS VIRUS BE SPREAD IN THE FOLLOWING WAYS?
(Circle 1 or 2 for each item)

| | <i>Yes, AIDS can be spread this way</i> | <i>No, AIDS cannot be spread this way</i> |
|--|---|---|
| from a woman to a man during sexual intercourse | 1 | 2 |
| from a man to a woman during sexual intercourse | 1 | 2 |
| from a mother to her baby during pregnancy | 1 | 2 |

36.

HOW EFFECTIVE ARE THE FOLLOWING WAYS TO AVOID CATCHING THE AIDS VIRUS?
(Circle appropriate number for each item)

| | <i>Not at all Effective</i> | <i>Not Very Effective</i> | <i>Fairly Effective</i> | <i>Very Effective</i> |
|---|---------------------------------|-------------------------------|-----------------------------|---------------------------|
| abstain from sexual intercourse | 1 | 2 | 3 | 4 |
| have sexual relations with only one person | 1 | 2 | 3 | 4 |
| use a condom during sexual intercourse | 1 | 2 | 3 | 4 |
| use a spermicide with a condom during vaginal intercourse | 1 | 2 | 3 | 4 |
| use vaseline with a condom during sexual intercourse | 1 | 2 | 3 | 4 |
| for a woman, use the birth control pill | 1 | 2 | 3 | 4 |
| abstain from using drugs intravenously | 1 | 2 | 3 | 4 |
| abstain from sharing needles | 1 | 2 | 3 | 4 |
| clean needles with bleach if they are shared | 1 | 2 | 3 | 4 |
| avoid crowded public places, like night clubs | 1 | 2 | 3 | 4 |
| avoid socializing with gays | 1 | 2 | 3 | 4 |

37.

FOR EACH OF THE FOLLOWING, INDICATE YOUR OPINION ON WHETHER THE FOLLOWING THINGS SHOULD BE DONE IN CANADA TO HELP PREVENT THE SPREAD OF THE AIDS VIRUS. (Circle appropriate number for each item)

| | <i>Strongly Disagree</i> | <i>Disagree</i> | <i>Agree</i> | <i>Strongly Agree</i> |
|---|------------------------------|-----------------|--------------|---------------------------|
| provide more AIDS education | 1 | 2 | 3 | 4 |
| allow employers to test for AIDS before hiring employees | 1 | 2 | 3 | 4 |
| ensure that AIDS test results are kept confidential (released by a doctor only to the patient) | 1 | 2 | 3 | 4 |
| publicize the names of people who are infected with the AIDS virus | 1 | 2 | 3 | 4 |
| quarantine (isolate) people who are infected with the AIDS virus | 1 | 2 | 3 | 4 |
| prohibit gays from working in schools | 1 | 2 | 3 | 4 |
| prohibit people who are infected with the AIDS virus from working in schools | 1 | 2 | 3 | 4 |
| prohibit students infected with the AIDS virus from attending school | 1 | 2 | 3 | 4 |
| prohibit people who are infected with the AIDS virus from working in restaurants | 1 | 2 | 3 | 4 |
| make condoms more available to teenagers | 1 | 2 | 3 | 4 |
| provide demonstrations on how to use a condom | 1 | 2 | 3 | 4 |
| have people with AIDS talk to students about their illness | 1 | 2 | 3 | 4 |

38.

FOR EACH OF THE FOLLOWING DESCRIPTIONS, INDICATE HOW SAFE OR RISKY YOU FEEL THE SITUATION IS FOR BECOMING INFECTED WITH THE AIDS VIRUS. (Circle appropriate number for each item)

| | <i>Very Risky</i> | <i>Somewhat Risky</i> | <i>Somewhat Safe</i> | <i>Very Safe</i> |
|---|-----------------------|---------------------------|--------------------------|----------------------|
| sexual intercourse with a recent acquaintance | 1 | 2 | 3 | 4 |
| having had two or three different sexual partners over the past five years | 1 | 2 | 3 | 4 |
| two people who have had sexual intercourse only with each other over the past five years | 1 | 2 | 3 | 4 |
| abstaining from sexual intercourse over the past five years | 1 | 2 | 3 | 4 |
| passionate or deep kissing with no sexual intercourse | 1 | 2 | 3 | 4 |
| sexual intercourse with a man who has had sex with another man | 1 | 2 | 3 | 4 |
| sexual massage or petting with no sexual intercourse | 1 | 2 | 3 | 4 |
| anal intercourse without a condom | 1 | 2 | 3 | 4 |
| oral-genital sex without a condom | 1 | 2 | 3 | 4 |
| sexual intercourse with an intravenous drug user | 1 | 2 | 3 | 4 |

39. IN THE LAST TWO MONTHS, WHAT HAS MOST AFFECTED YOUR KNOWLEDGE AND ATTITUDES REGARDING AIDS AND ITS PREVENTION?

1. _____ ☐ ☐
2. _____ ☐ ☐

40. IF YOU ARE COMPLETING THIS QUESTIONNAIRE ON OR AFTER TUESDAY, APRIL 3, PLEASE TELL US IF YOU WATCHED **TALKING ABOUT AIDS** ON CBC TELEVISION ON MONDAY, APRIL 2.

- | Yes | No |
|-----|----|
| 1 | 2 |

41. WHAT IS THE NAME OF THE VIRUS THAT CAUSES AIDS? (Use abbreviation if you wish)
(Please print) _____ ☐

42. WHAT ARE **THREE** COMMON WAYS THAT PEOPLE BECOME INFECTED WITH THE AIDS VIRUS?
(Please print - Use point form)

1. _____ ☐ ☐
2. _____ ☐ ☐
3. _____ ☐ ☐

43. WHAT DO YOU THINK IS THE **SINGLE** MOST IMPORTANT THING WHICH MUST BE DONE TO HELP YOUNG PEOPLE AVOID BECOMING INFECTED WITH AIDS? (Please print - Use point form)

_____ ☐ ☐

*Thank you for your participation.
The results of this survey will help fight the spread of AIDS.*

N.L.C. - B.N.C.



3 3286 12231884 9